4.10.3 Data Distribution Requests GUI

The Data Distribution software is capable of delivering ordered ECS product data either electronically using FTP push/pull or on hard media such as CD-ROM. However, with the introduction of the Product Distribution System (PDS) COTS software in ECS Release 6A, the Data Distribution software is configured to handle only electronic FTP delivery requests. All hard media delivery requests are handled by PDS, which is described in Section 4.10.5.

The Data Distribution Requests GUI displays detailed information on individual data distribution requests and provides the capability to filter requests, change the priority of requests, and mark requests as shipped. The GUI's main window provides operations personnel at the DAACs the capability for managing data distribution requests. A summary of the functions performed by the Data Distribution Requests GUI is given in Table 4.10.3-1.

Table 4.10.3-1. Common ECS Operator Functions Performed with the Data Distribution GUI

Operating Function	Tab	Description	When and Why to Use
Manage Data Distribution Request Activities	Distribution Requests Tab	Allows operators to view and track data distribution requests	As required to monitor detailed information on data distribution request activities, change priority of requests, and mark requests as shipped, suspend/resume selected requests, suspend/resume all requests, and filter requests.

4.10.3.1 Quick Start Using Data Distribution

To start the Data Distribution Requests GUI, enter the following command line:

>**EcDsDdistGuiStart <mode>** where:

<**mode**> is the ECS mode for the execution, e.g., **OPS**, **TS1**.

4.10.3.2 Data Distribution Main Screen

The Data Distribution Requests GUI Main Screen has five tabs:

- The **Data Distribution Requests** tab provides the functionality needed to track the activity related to product distribution requests.
- The **System Request** tab has not yet been defined as of ECS Release 6A delivery.
- The **Tape Ids** tab allows hard media such as tapes and CDROMS to be searched from the Distribution list based on the ID or Distribution Request Number.
- The **Preamble Editor** tab allows the email and packing list headers to be edited.
- The **Event Log Search Parameters** tab has not yet been defined as of ECS Release 6A delivery.

The following sub-sections describe the use of these tabs.

4.10.3.2.1 The Data Distribution Requests Tab

The Data Distribution Requests Tab, shown in Figures 4.10.3-1, is the default tab that appears when the Data Distribution Requests GUI is invoked.

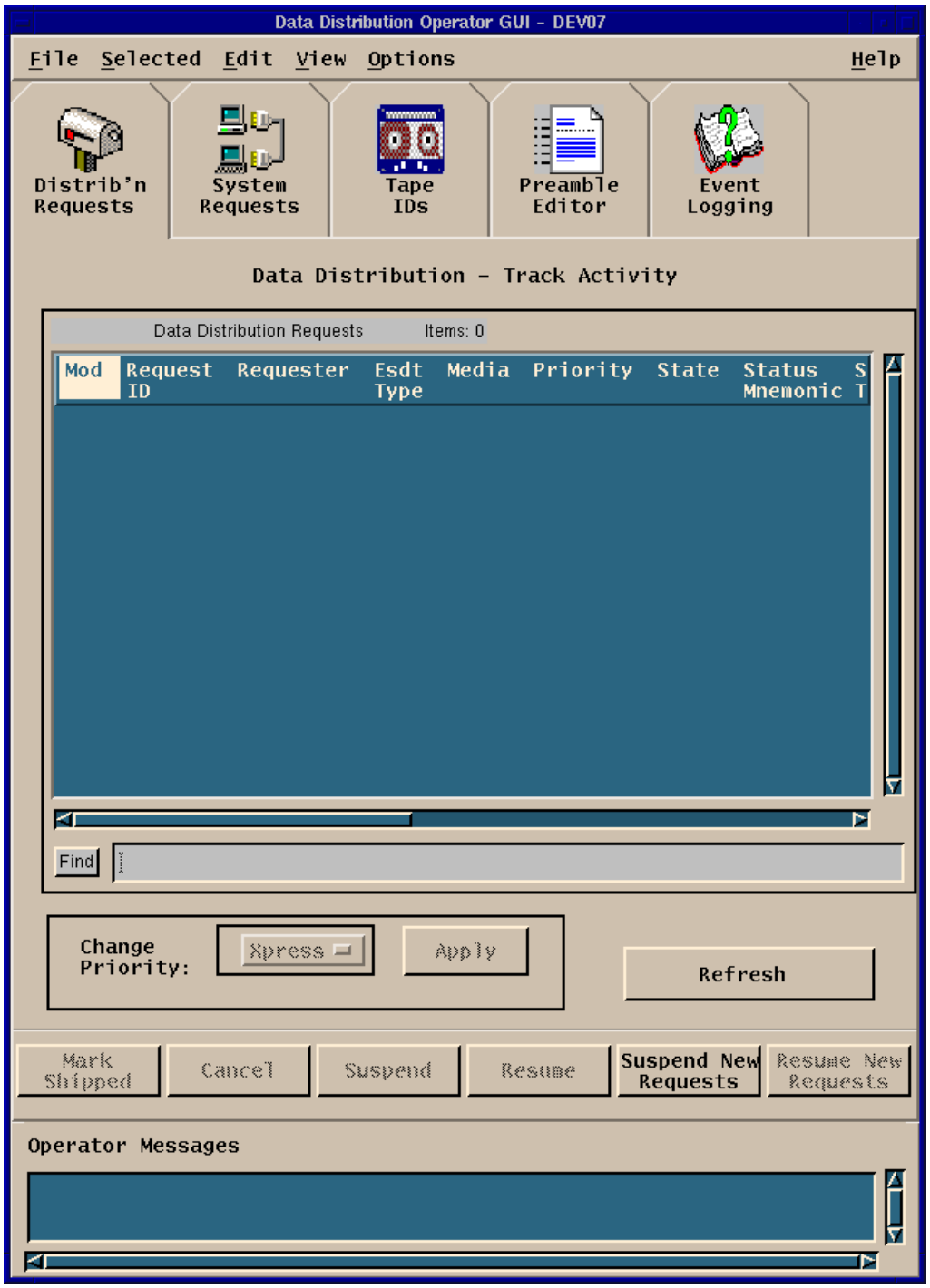

Figure 4.10.3-1. Data Distribution Main Screen showing Data Distribution Request Tab (1 of 2)

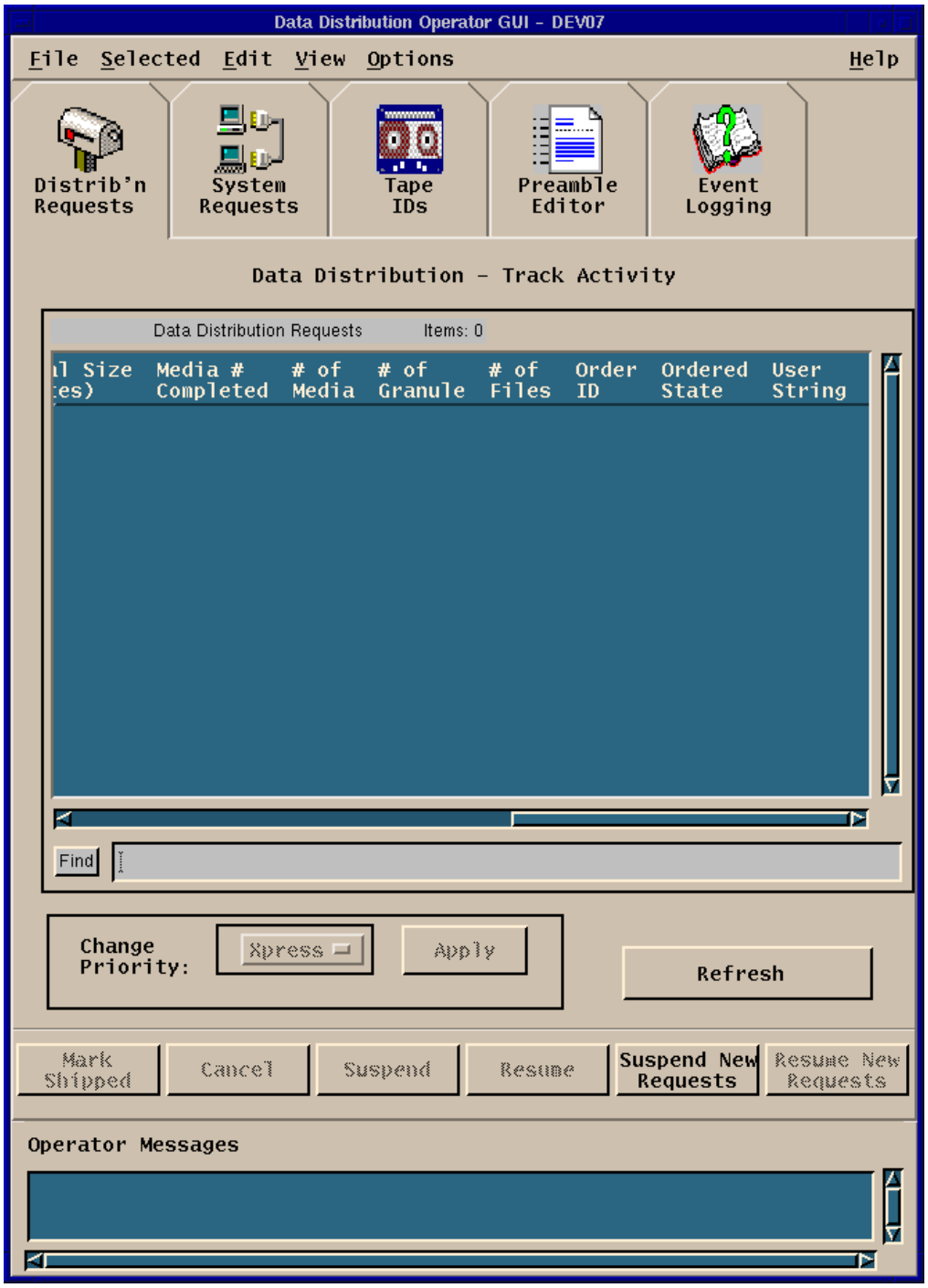

Figure 4.10.3-1. Data Distribution Main Screen showing Data Distribution Request Tab (2 of 2)

The Data Distribution Request tab displays data distribution requests. The major component is the Track Activity panel which lists the data distribution requests currently being handled by the Data Distribution server. The total number of requests is displayed at the top of the panel in the Items field. Several parameters associated with each individual request are displayed. The list can be sorted by column. All of the parameters included for each request are identified and described in Table 4.10.3-2.

Table 4.10.3-2. Data Distribution - Track Activity Panel Field Description (1 of 2)

Field Name	Data Type	Size	Entry	Description
MOD	boolean	1		Checkmark that shows which requests have been selected and/or modified by the operator during the current session
Request ID	character	unlimited	system generated	Unique identifier for the request.
Requester	character	unlimited	system generated	Identifies the user that submitted the request.
Media	character	unlimited	system generated	Type of media to be used for distribution. Values are read from the Registry.
Priority	character	unlimited	system generated	Priority at which the distribution request is processed relative to other distribution requests, Normal is its default value. Other Values are: Xpress, Vhigh, High, and Low.
State	character	unlimited	system generated	Request states are: pending, active, staging, waiting for shipment, shipped, canceled, transferring, suspended, suspended with errors.
Status Mnemonic	character	unlimited	system generated	Displays a small message that indicates there is an operator message attached to the request.
Submission Time	date/time	19	system generated	Time when the submit service was invoked upon the request. The time is standard GMT The format used is: mm/dd/yyyy hh:mm:ss.
End Time	date/time	19	system generated	Time when the distribution request has been satisfied. Time is in standard GMT, the format is mm/dd/yyyy hh:mm:ss.
Estimated Size (bytes)	integer	unlimited	system generated	Estimated total size in bytes of the data to be distributed in the request.
Estimated # of Media	integer	unlimited	system generated	Estimated number of media that will need to be used to fulfill a compressed media distribution request.
Total Size (bytes)	integer	unlimited	system generated	Total size in bytes of the data to be distributed in the request.

Table 4.10.3-2. Data Distribution - Track Activity Panel Field Description (2 of 2)

Field Name	Data Type	Size	Entry	Description
Media # Completed	integer	unlimited	system generated	# of media that have been already filled up by the distribution request that is being processed
# Media	integer	max # of Media configurable	system generated	# of Media that need to be used to completely fulfill a (media) distribution request if it were to not be compressed.
# Granules	integer	unlimited	system generated	# of granules comprising the distribution request
# of Files	integer	unlimited	system generated	Number of files in the distribution request.
Order ID	character	unlimited	system generated	the unique order ID that the entire data server use for identifying the distribution request
Ordered State	character	20	system generated	Request State can be changed directly by the operator by means of the button provided on the Track Activity screen (see below). See "State" field for values.
User String	character	255	system generated	Contains original user request ID. Used to correlate a DN with original request.

The operator can select from the menu bar items at the top of the Data Distribution GUI window for getting help and activating less-frequently used secondary functions. The menu bar capability is available on all Data Server GUI screens. The following menus are available:

- **File** includes the following items:
  - **View** opens a text viewer window
  - **Open Terminal** opens an XTerm window
  - **Save As…** saves the current contents of the Data Distribution Requests table, Tape Request and Tape ID tables, or the Preamble Text editor to a text file.
  - **Print** sends the current contents of the Data Distribution Requests table, Tape Request and Tape ID tables, or the Preamble Text editor to the default printer.
  - **Exit** (Ctrl-Q) exits the application (graceful exit).
- **Selected** opens the a menu comprising the following items:
  - **Select All** not yet associated with any specific functionality as of this time
  - **Deselect All** not yet associated with any specific functionality as of this time
- **Edit** that includes the following items:
  - **Cut** removes the selected text from the Preamble Text editor and puts in the X Windows clipboard.
  - **Copy** places a copy of the selected text from the Preamble Text editor into the X Windows clipboard.
  - **Paste** inserts the text on the X Windows clipboard into the selected area of the Preamble Text editor.
- **View** includes the following items:
  - **Refresh** redraws the window

- **Filter** opens the Filter Control window
- **Detailed** sends the detailed information of the selected distribution request to the operator messages text field

- **Options** includes the following items:
  - **System Settings** opens the Refresh Options window where the operator is given the option to toggle the **DDist base polling *On*** and ***Off*** through the provided toggle button (see Figure 4.10.3-2). In case the operator decided to have the polling of the Data Distribution Database ***On***, the polling rate is editable. Details on the parameters that can be input by the operator in the Refresh Options screen are provided in Table 4.10.3-3
  - **Verify Connection** checks the connections to the distribution server, and sends the connection status to the operator message text field
  - **Reconnect** attempts to reestablish communications to the Distribution server
- **Help** provides on-line help to the operator.

Table 4.10.3-3. Refresh Options Field Description

Field Name	Data Type	Size	Entry	Description
DDist Polling Rate	integer	0-9999	optional	Allows the operator to specify the polling rate in seconds for updating the Task Activity Window (default is 30 sec).
Error Retry Rate	integer	0-9999	optional	Time in seconds that the system is going to wait before trying to poll the Data Server, after a failed attempt (currently not yet supported).

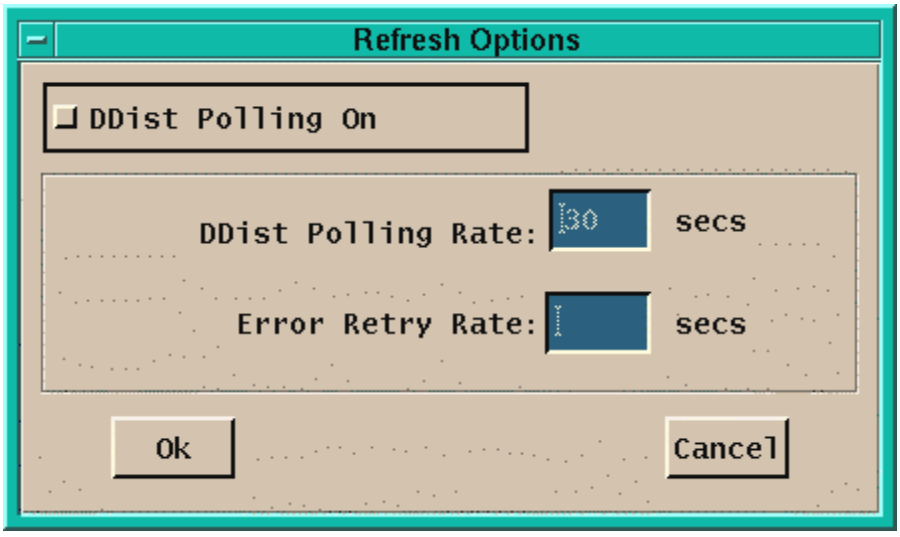

Figure 4.10.3-2. Refresh Options Window

The Data Distribution Tab includes additional functionality associated with the following buttons:

- **Apply** allows the operator to change the priority of the distribution requests selected in the Track Activity panel. Available selections are Xpress, Vhigh, High, Normal (default), and Low. The priority selection is handled through a pull down menu.
- **Mark Shipped** allows the operator to change the state of the selected Hard Media distribution request from waiting for shipment to shipped when the request has actually been shipped.
- **Filter (from the Options menu)** brings up the Filter Request Dialog (see Figure 4.10.3-3) which provides a selection of attributes from the list of distribution requests on which to filter. Filter on **Request ID** and **Requester** is done by selecting the corresponding toggle button and entering the desired information. Selecting the **All Requests** radio button returns to the original state of the request list. Further request filtering is allowed by selecting one or more media type list entries. The operator filters on all Media types by clicking the **All** button or clears all selected filters by clicking on the **None** button. . Options for the Media Type are determined by entries within the Registry.

  Filtering is also allowed based on possible States of the request by selection through the available radio buttons in the **State:** panel. By clicking on **All** the operator can filter on all possible states. All selected filters can be cleared by clicking on the **None** button. Selectable States include: Pending, Active, Staging, Transferring, Cancelled, Suspended, Suspended with Errors, Waiting for Shipment, and Shipped.

  In addition, the following pushbuttons are available:

  - **OK** applies all selected filters and closes the filter dialog.
  - **Apply** implements all filters and keeps the filter dialog open (in case other filtering needs to be done.)
  - **Cancel** closes the filter dialog without applying the selected filters.
  - **Help** displays on-line help information.

Table 4.10.3-4 describes the Data Distribution - Filter Requests fields.

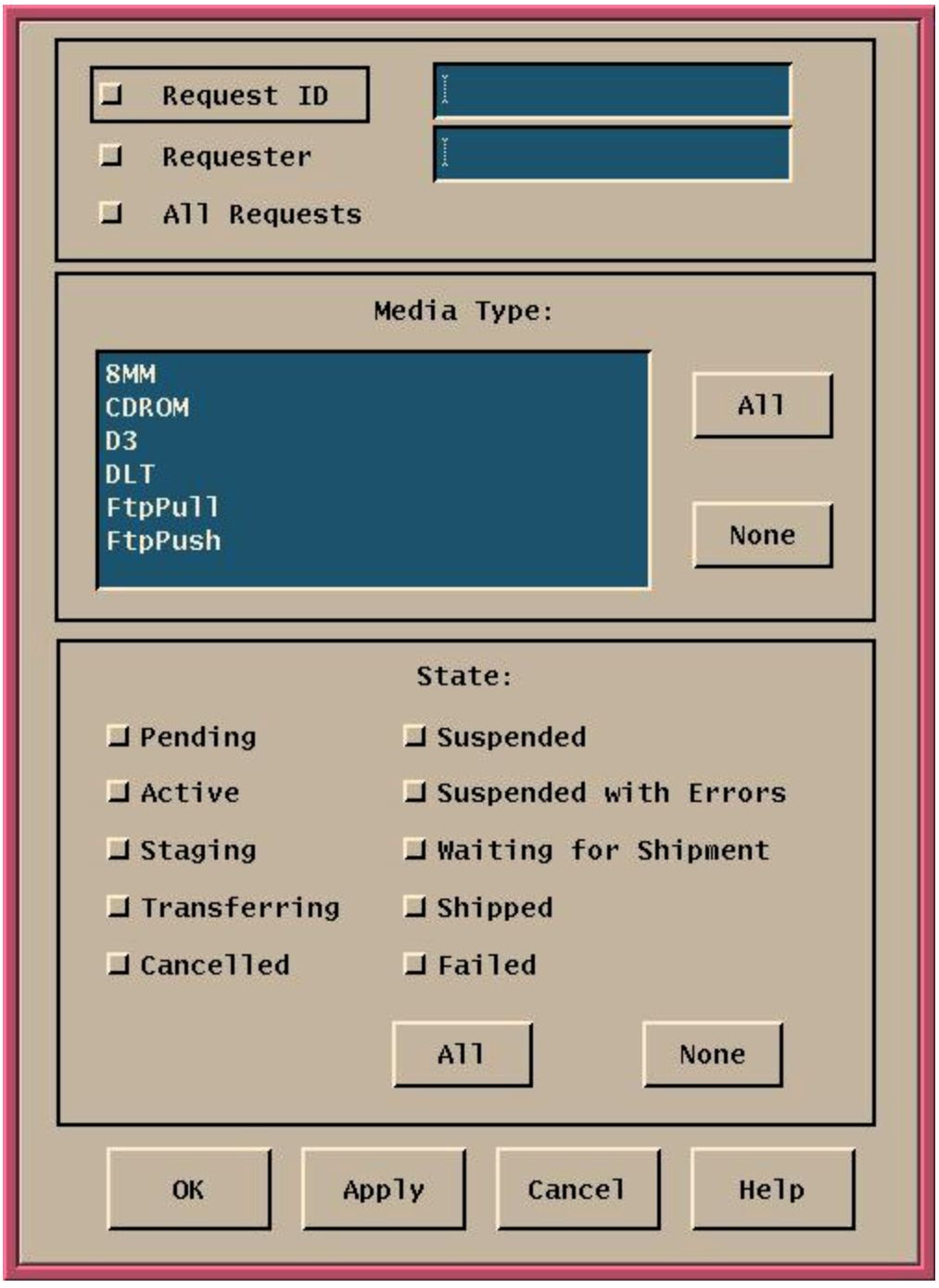

Figure 4.10.3-3. Data Distribution - Filter Requests Dialog

Table 4.10.3-4. Data Distribution - Filter Requests Field Description

Field Name	Data Type	Size	Entry	Description
Request ID	character	unlimited	Operator Selected	Unique identifier for the request.
Requester	variable character	unlimited	Operator Selected	Identifies user that submitted the request.
All Requests	Boolean	1	Operator Selected	When toggled ON, all requests are displayed.
Media Type	character	unlimited	Operator Selected	Request(s) with media attribute among the selected types are added to filtered list.
State	Boolean	1	Operator Selected	Request(s) with State attribute within the toggled ON states are added to the filtered list.

Back to the Data Distribution Tab, the following additional buttons are also available:

- **Refresh** updates the Data Distribution Request screen with the most recent list of requests.
- **Cancel**, **Suspend** and **Resume** allow the operator to, respectively, cancel, suspend or resume the requests selected in the Track Activity list.
- Finally the **Suspend All** and **Resume All** buttons suspend all and resume all requests currently present in the Data Distribution server.
- **Operator Messages**: any error encountered during an operation to a request in the list is displayed in the operator messages window at the bottom of the screen.

4.10.3.2.2 System Requests Tab

The functionality associated with the System Requests tab shown in Figure 4.10.3-4 is not yet defined, as of ECS Release 6A delivery.

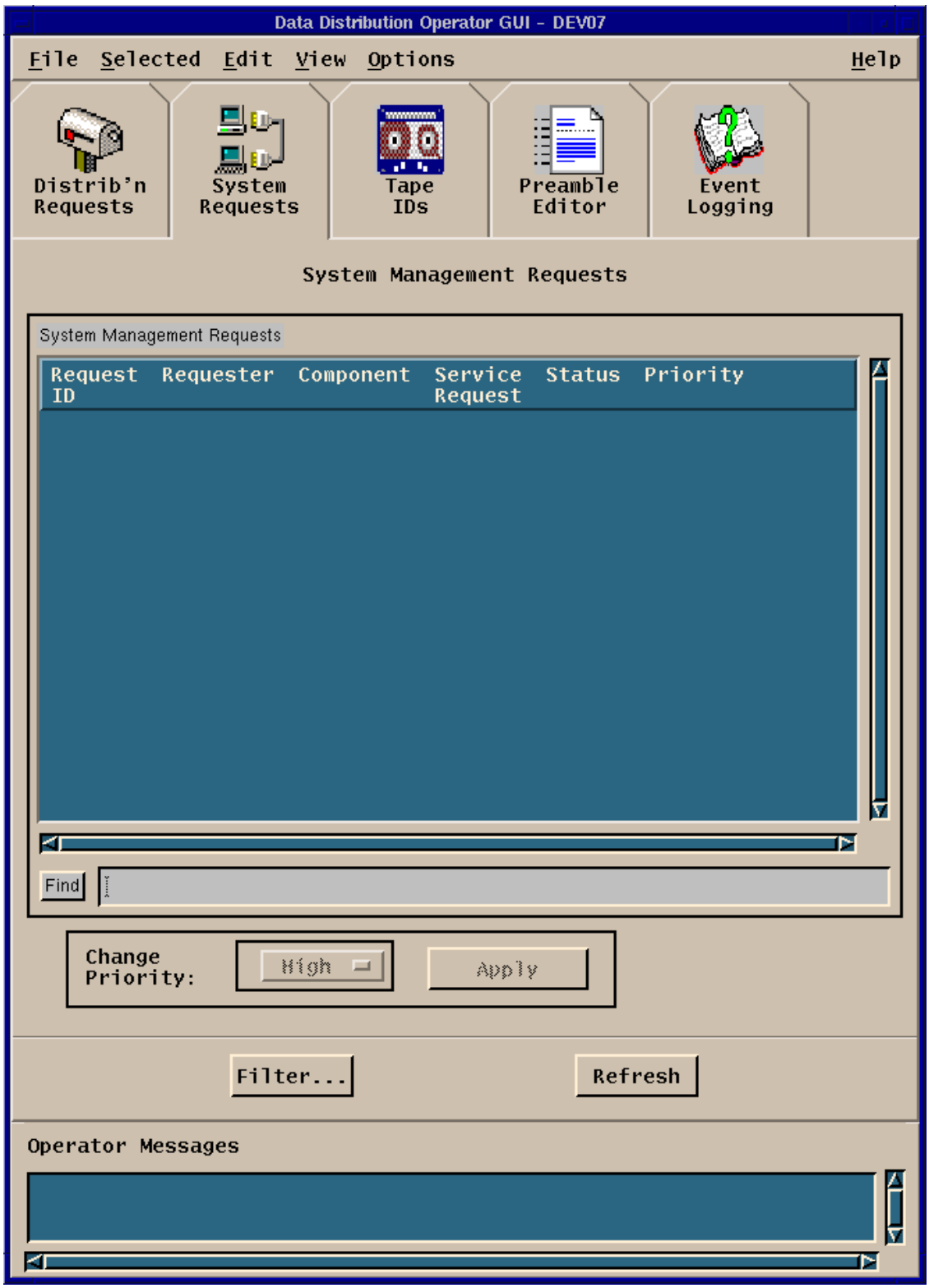

Figure 4.10.3-4. System Requests Tab

4.10.3.2.3 Tape Id Tab

The purpose of the Tape Id tab shown in Figure 4.10.3-5 is to find and display Distribution Hard Media Request Items and Media ID's associated with these requests.

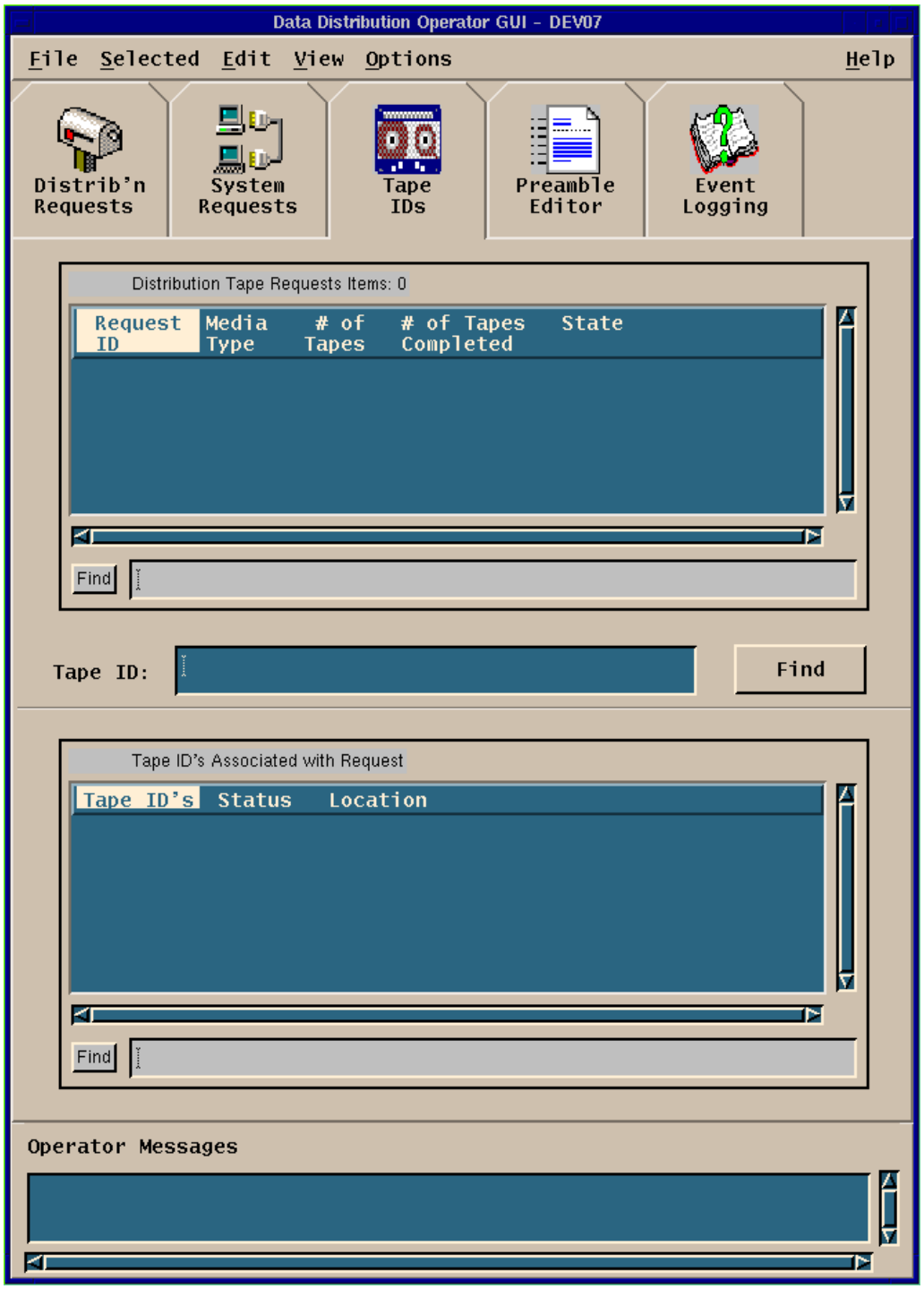

Figure 4.10.3-5. Tape Id Tab

The tab contains two list panels, one for Distribution Hard Media Requests and the other for Media ID's Associated with Request. The first list displays the total number of media requests at the top of the panel. Several parameters associated with each individual request are displayed to the user through this panel. The list can be sorted by column. All of the parameters included for each request in the Distribution Hard Media Requests panel are listed and described in Table 4.10.3-5.

Table 4.10.3-5. Distribution Hard Media Requests Items Field Description

Field Name	Data Type	Size	Entry	Description
Request ID	character	unlimited	system generated	Unique identifier for the request.
Media Type	character	unlimited	system generated	Type of tape media to be used for distribution. Values are 8mm, D3, CDROM, and DLT.
# Media	integer	max # of Media	system generated	# of Media that need to be used to completely fulfill a media distribution request.
# Media Completed	integer	unlimited	system generated	# of Media that have already been filled up by the distribution request that is being processed
State	character	unlimited	system generated	Request states are: pending, active, staging, waiting for shipment, shipped, canceled, transferring, suspended, suspended with errors.

The second list displays the total set of media associated with the request selected in the first list. Several parameters associated with each individual request are displayed to the user through this panel. The list can only be sorted by Tape ID column. All of the parameters included for each request in the Media Ids Associated with Request panel are listed and described in Table 4.10.3-6.

Table 4.10.3-6. Media ID's Field Description

Field Name	Data Type	Size	Entry	Description
Media ID	character	unlimited	system generated	Unique identifier for themedia.
Status	character	unlimited	System generated	Storage Management description of the media status.
Location	character	unlimited	System generated	Physical location of themedia.

The Media ID's tab includes additional functionality associated with the following button:

- **Find** allows the operator to search the database for a specified Media ID. If found, the media's associated Request ID will be displayed in the Distribution Hard Media Requests list, and all of the media associated with the Request are listed in the Media ID list.

4.10.3.2.4 Preamble Editor Tab

The purpose of the Preamble Editor tab as shown in Figure 4.10.3-6 is to provide editing functions for the preamble files for email and packing lists.

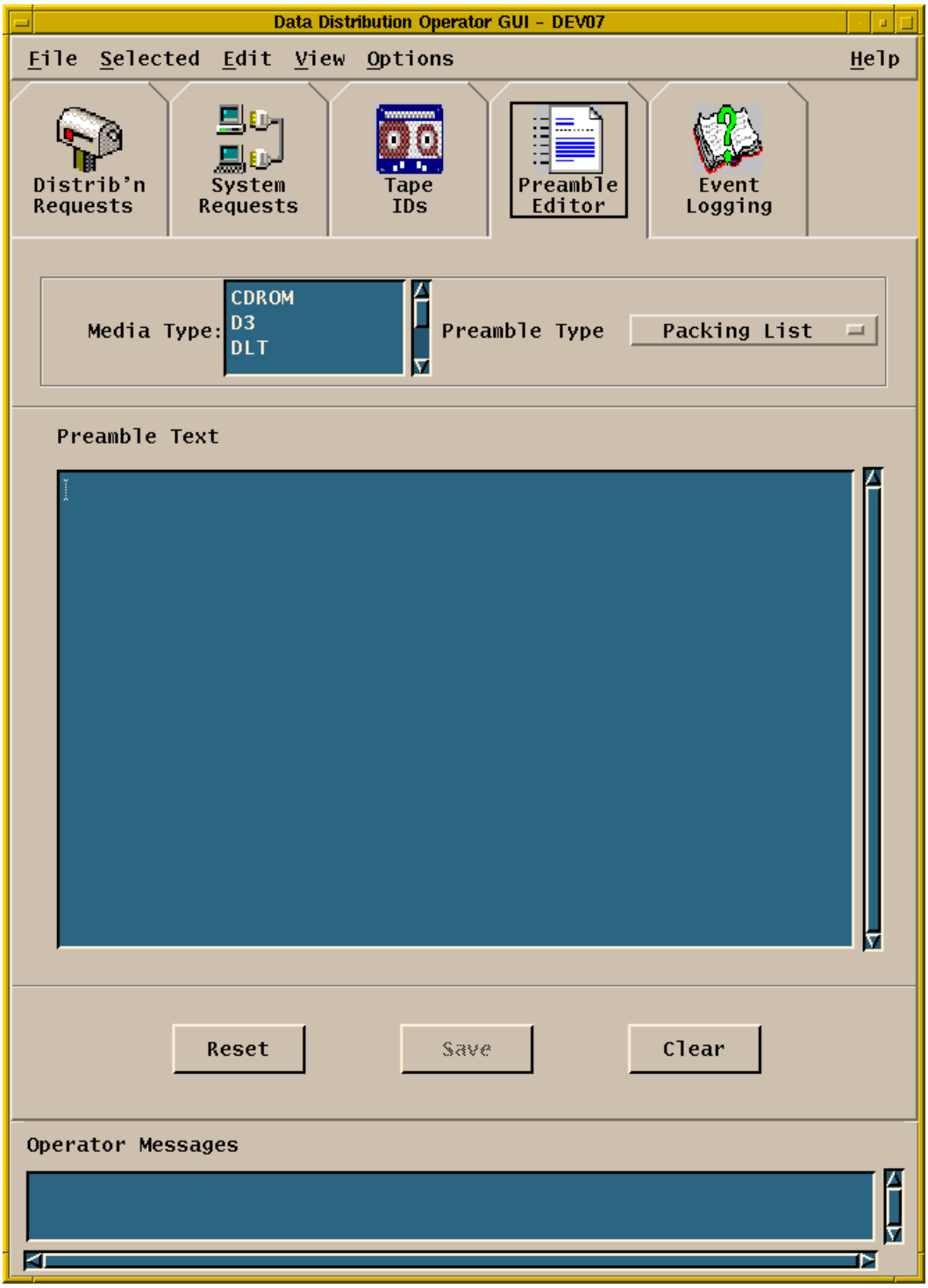

Figure 4.10.3-6. Preamble Editor Tab

The Preamble Editor tab allows the editing of each media type's Packing list, Successful report, and Failure report Preamble messages. The major component of this tab is the text editing window, in which the Preamble messages are displayed and changed. Above the text editing window are two gadgets for selecting the Media Type and Report Type. The Media Type gadget is a scrolled list which is automatically filled from entries in the registry on which types of media are available. The Report Type gadget is a pull down list with three options: Packing List, Successful Email, and Failed Email. By selecting a value from either one of these gadgets, the corresponding media/report Preamble text is loaded from the approprite file into the text editing window.

Below the text editing window are three buttons: Reset, Save, and Clear. Pressing the Reset button discards any changes made and reloads the current media/report Preamble text from the appropriate file. Pressing the Save button will write the current contents of the text edit window to the appropriate file. Pressing the Clear button will remove all text from the text editing window.

If any changes are made to the text in the text editing window after loading or saving, the GUI will display a reminder notice to Save if the Media Type, Report Type, or tab is changed. Also, the editing functions Cut, Copy, Paste in the Edit menu are enabled whie within the Preamble Editor tab. These editing functions are also available by right-clicking within the text editing window.

4.10.3.2.5 Event Log Search Parameters Tab

The functionality associated with the Event Logging tab shown in Figure 4.10.3-7 is not yet defined, as of ECS Release 6A delivery.

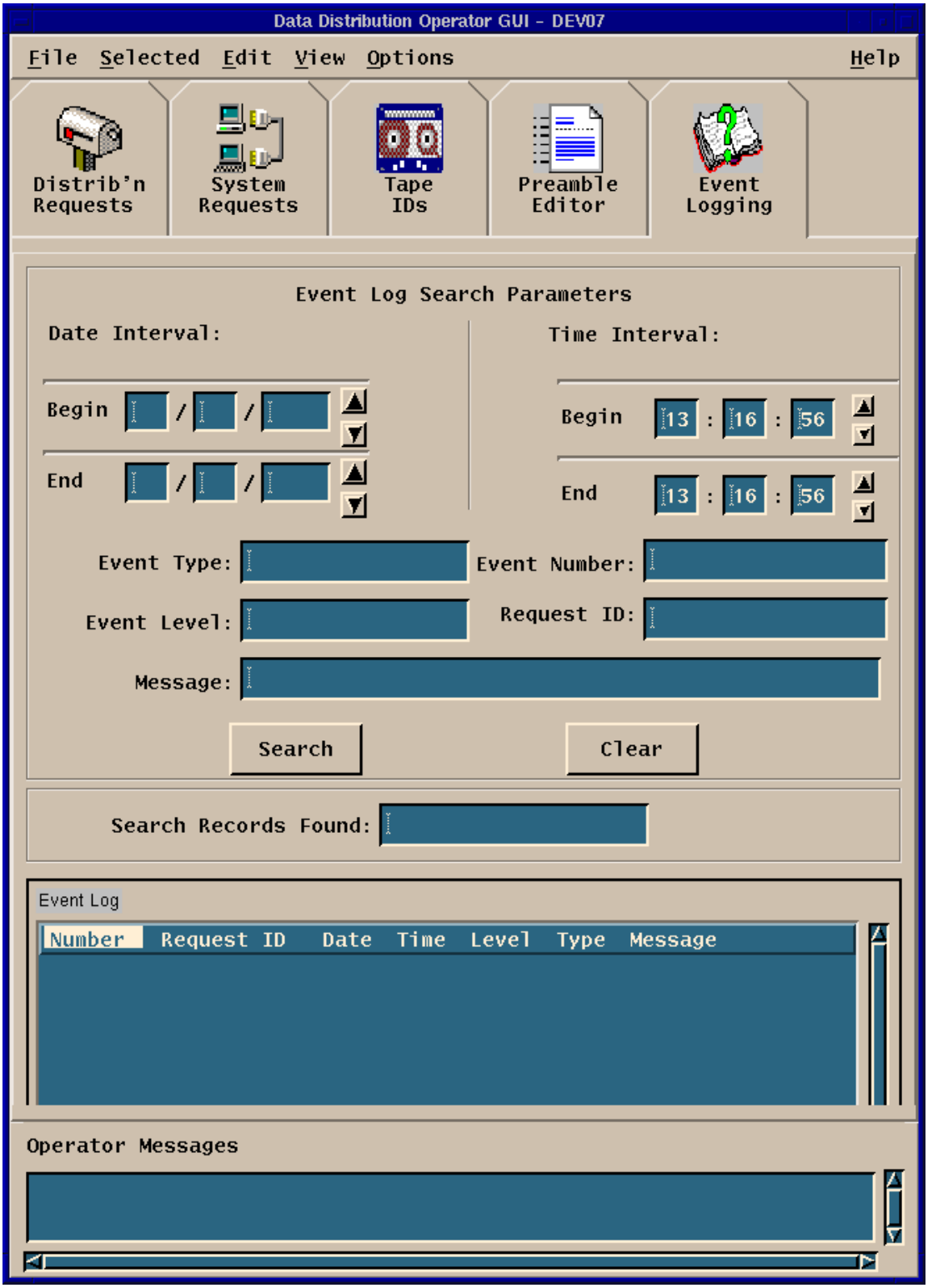

Figure 4.10.3-7. Event Logging Tab

4.10.3.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series . The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.10.3.3.1 Interfaces and Data Types

Table 4.10.3-7 identifies the supporting products this tool depends upon in order to function properly.

Table 4.10.3-7. External Interface Protocols

Product Dependency	Protocol Used	Comments
DDIST and all clients	DCE	via DDIST client libraries

4.10.3.4 Databases

The Data Distribution Requests Tool displays and updates the list of distribution requests after retrieving the information from the EcDsDistributionServer database associated with a mode. Mode refers to the system environment (e.g., OPS, TS2). Details about the architecture of the EcDsDistributionServer database can be found in the applicable section of DID 311-CD-101-005, *Data Distribution Database Design and Schema Specifications for the ECS Project.*

4.10.3.5 Special Constraints

The Data reported in the Task Activity window has to be retrieved from the Data Distribution database, as specified in the previous paragraph. The Data Distribution database must then be up and running before invoking the Data Distribution Tool.

4.10.3.6 Outputs

The Data Distribution Tool mainly is used to display data produced by other ECS components and does not generate any specific output.

4.10.3.7 Event and Error Messages

Both event and error messages are listed in Appendix A.

4.10.3.8 Reports

None

4.10.4 Granule Deletion Administration Tool

The Granule Deletion Administration Tool provides the ECS Operations Staff with the ability to delete granules using a command line interface. The granules can be deleted from both the inventory and archive or just the archive. Granules are not physically deleted from the Archive. The directory entry is deleted so that the files can not be accessed. The physical storage occupied by the deleted granules is not reclaimed through this operation.

The deletion process can involve deleting the specified granules along with associated granules as long as the associated granules are not referenced by any other granule. (e.g. browse, PH, QA) The deletion process can also involve deleting the specified granules even if they are inputs to other granules.

4.10.4.1 Quick Start Using the Granule Delete Administration Tool

The Granule Deletion Administration Tool is started by entering the following command:

>**EcDsGranuleDelete ConfigFile /usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG ecs_mode <MODE> <command line parameters>**

There are various command line parameters and they are used in combination with each other. Table 4.10.4-1 provides a description of the parameters.

Table 4.10.4-1. Command Line Parameters of the Granule Deletion Administration Tool

Parameter Name	Description
name	ESDT Short Name of the granules to delete
version	ESDT Version ID of the granules to delete
begindate	Beginning Date of the temporal range of granules to delete
enddate	Ending Date of the temporal range of granules to delete
insertbegin	Beginning time when granules to delete were inserted
insertend	Ending time when granules to delete were inserted
localgranulefile	Name of file that contains ESDT ShortName, Version IDs and Local Granule Ids of the granules to delete
geoidfile	Name of file that contains geoids of the granules to delete
log	Name of log file to record the deletion operations. This parameter is mandatory.
physical	Delete from inventory and archive
DFA	Delete from archive only
noprompt	Do not prompt for confirmation of the delete
display	Display the candidate granules for deletion, but do not delete
noassoc	Do not delete associated granules (QA, Browse, PH)
delref	Delete granules that are referenced by other granules

There are some parameters that are mandatory. The parameter physical, DFA or display must be specified. There are several parameters used to specify the science granules to delete: name, version, begindate and enddate or name, version, insertbegin and insertend or localgranulefile or geoidfile.

4.10.4.2 Granule Deletion Administration Tool Commands

The Granule Deletion Administration Tool provides the following 44 granule deletion options:

1. Confirmed deletion of science and associated granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID and temporal range criteria input by the user.
2. Unconfirmed deletion of science and associated granules from the Archive and Inventory. The science granules from meet the ShortName, VersionID and temporal range criteria input by the user.
3. Confirmed deletion of science granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID and temporal range criteria input by the user.
4. Unconfirmed deletion of science granules from the Archive and Invnetory. The science granules must meet the ShortName, VersionID and temporal range criteria input by the user.
5. Confirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID, and temporal range criteria input by the user.
6. Unconfirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID, and temporal range criteria input by the user.
7. Confirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID, and temporal range criteria input by the user.
8. Unconfirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID, and temporal range criteria input by the user.
9. Confirmed deletion of science granules from the Archive. The science granules must meet the ShortName, VersionID and temporal range criteria input by the user.
10. Unconfirmed deletion of science granules from the Archive. The science granules must meet the ShortName, VersionID and temporal range criteria input by the user.
11. Confirmed deletion of science and associated granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID and insert time range input by the user.

12. Unconfirmed deletion of science and associated granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID and insert time range input by the user.

13. Confirmed deletion of science granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID and insert time range input by the user.

14. Confirmed deletion of science granules from the Archive and Inventory. The science granules must meet the ShortName, VersionID and insert time range input by the user.

15. Confirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules must meet the Shortname, VersionID, and insert time range input by the user.

16. Unconfirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules must meet the Shortname, VersionID, and insert time range input by the user.

17. Confirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules must meet the Shortname, VersionID, and insert time range input by the user.

18. Unconfirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules must meet the Shortname, VersionID, and insert time range input by the user

19. Confirmed deletion of science granules from the Archive. The science granules must meet the ShortName, VersionID and insert time range input by the user.

20. Unconfirmed deletion of science granules from the Archive. The science granules must meet the ShortName, VersionID and insert time range input by the user.

21. Confirmed deletion of science and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId.

22. Confirmed deletion of science and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId.

23. Confirmed deletion of science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId.

24. Unconfirmed deletion of science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId.

25. Confirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VesionID and LocalGranuleId.

26. Unconfirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VesionID and LocalGranuleId.

27. Confirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VesionID and LocalGranuleId.

28. Unconfirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains ShortName, VesionID and LocalGranuleId

29. Confirmed deletion of science granules from the Archive. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId.

30. Unconfirmed deletion of science granules from the Archive. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId

31. Confirmed deletion of science and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

32. Unconfirmed deletion of science and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

33. Confirmed deletion of science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

34. Unconfirmed deletion of science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids

35. Confirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

36. Unconfirmed deletion of referenced and unreferenced science granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

37. Confirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

38. Unconfirmed deletion of referenced and unreferenced science granules and associated granules from the Archive and Inventory. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

39. Confirmed deletion of science granules from the Archive. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

40. Unconfirmed deletion of science granules from the Archive. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

41. Display science granules that are candidates for deletion. The science granules muse meet the ShortName, VersionID and temporal range criteria input by the user.

42. Display science granules that are candidates for deletion. The science granules must meet the ShortName, VersionID and insert time range criteria input by the user.

43. Display science granules that are candidates for deletion. The science granules to delete are defined in a file that contains ShortName, VersionID and LocalGranuleId.

44. Display science granules that are candidates for deletion. The science granules to delete are defined in a file that contains SDSRV Granule Ids.

4.10.4.2.1 Confirmed Deletion of Science and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.2 Unconfirmed Deletion of Science and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-noprompt

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.3 Confirmed Deletion of Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-noassoc

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.4 Unconfirmed Deletion of Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-noassoc

-noprompt

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.5 Confirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-noassoc

-delref

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>. The science granules should be deleted even if other granules reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.6 Unconfirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-noassoc

-delref

-noprompt

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>. The science granules should be deleted even if other granules reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the granules should be deleted without a confirmation from the user.

4.10.4.2.7 Confirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-delref

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>. The science granules should be deleted even if other granules reference them. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.8 Unconfirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-physical

-delref

-noprompt

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>. The science granules should be deleted even if other granules reference them. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the granules should be deleted without a confirmation from the user.

4.10.4.2.9 Confirmed Deletion of Science Granules from the Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-DFA

This command deletes from the Archive science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –DFA parameter specifies that the granules will be deleted from the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.10 Unconfirmed Deletion of Science Granules from the Archive by ESDT Short Name, Version ID and Data Temporal Coverage

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-DFA

-noprompt

This command deletes from the Archive science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the temporal range specified by parameters <begindate> and <enddate>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –DFA parameter specifies that the granules will be deleted from the Archive.

The -noprompt parameter specifies that the granules should be deleted without a confirmation from the user.

4.10.4.2.11 Confirmed Deletion of Science and Associated Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.12 Unconfirmed Deletion of Science and Associated Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-noprompt

This command physically deletes science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.42.13 Confirmed Deletion of Science Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-noassoc

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.14 Unconfirmed Deletion of Science Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-noassoc

-noprompt

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.15 Confirmed Deletion of Referenced and Unreferenced Science Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-noassoc

-delref

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.16 Unconfirmed Deletion of Referenced and Unreferenced Science Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-noassoc

-delref

-noprompt

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.17 Confirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-delref

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2 18 Unconfirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Archive and Inventory by ESDT Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-physical

-delref

-noprompt

This command physically delete science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.19 Confirmed Deletion of Science Granules from the Archive by Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-DFA

This command deletes from the Archive science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –DFA parameter specifies that the granules will be deleted from the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.20 Unconfirmed Deletion of Science Granules from the Archive by Short Name, Version ID and Insert Time Range

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-DFA

-noprompt

This command deletes from the Archive science granules specified by <ESDT_Shortname> and <ESDT_VersionID> and within the insert time range specified by parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The –DFA parameter specifies that the granules will be deleted from the Archive.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.21 Confirmed Deletion of Science and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.22 Unconfirmed Deletion of Science and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-noprompt

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.23 Confirmed Deletion of Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-noassoc

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.24 Unconfirmed Deletion of Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-noassoc

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.25 Confirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-noassoc

-delref

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.26 Unconfirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-noassoc

-delref

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.27 Confirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-delref

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.28 Unconfirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Inventory and Archive by ESDT Short Name, Version ID and Local Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-physical

-delref

-noprompt

This command physically deletes science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the user will not be prompted to confirm the deletion.

4.10.4.2.29 Confirmed Deletion of Science Granules from the Archive by ESDT Short Name, Version ID and Local Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-DFA

This command deletes from the Archive science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -DFA parameter specifies that the granules will be deleted from the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.30 Unconfirmed Deletion of Science Granules from the Archive by ESDT Short Name, Version ID and Local Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-DFA

-noprompt

This command deletes from the Archive science granules defined in a file that contains ESDT ShortName, ESDT Version ID and Local Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The -DFA parameter specifies that the granules will be deleted from the Archive.

The -noprompt parameter specifies that the granules should be deleted without confirmation from the user.

4.10.4.2.31 Confirmed Deletion of Science and Associated Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

This command physically deletes science granules specified by SDSRV Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.32 Unconfirmed Deletion of Science and Associated Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-noprompt

This command physically deletes science granules specified by SDSRV Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.33 Confirmed Deletion of Science Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-noassoc

This command physically deletes science granules specified by SDSRV Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.34 Unconfirmed Deletion of Science Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-noassoc

-noprompt

This command physically deletes science granules specified by SDSRV Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.35 Confirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-noassoc

-delref

This command physically deletes science granules specified by SDSRV Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.36 Unconfirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-noassoc

-noprompt

This command physically deletes science granules specified by SDSRV Granule Id.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -noassoc parameter specifies that the associated granules will not be deleted even if other granules do not reference them.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.37 Confirmed Deletion of Referenced and Unreferenced Science Granules and Associated Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-delref

This command physically deletes science granules specified by SDSRV Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.38 Unconfirmed Deletion of Referenced and Unreferenced Science Granules from the Inventory and Archive by SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-physical

-noprompt

This command physically deletes science granules specified by SDSRV Granule Id. Associated granules are also deleted as long as other granules do not reference them.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -physical parameter specifies that the granules will be deleted from the Inventory and the Archive.

The -delref parameter specifies that the science granules should be deleted even if other granules reference them.

The -noprompt parameter specifies that the user does not want to confirm the deletion of the granules.

4.10.4.2.39 Confirmed Deletion of Science Granules from Archive SDSRV Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-DFA

This command deletes from the Archive science granules defined in a file that contains SDSRV Granule Ids.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -DFA parameter specifies that the granules will be deleted from the Archive.

The number of candidate science granules to be deleted will be displayed and the user will be prompted to confirm the deletion.

4.10.4.2.40 Unconfirmed Deletion of Science Granules from Archive by SDSRV Granule Id

This command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-DFA

-noprompt

This command deletes from the Archive science granules defined in a file that contains SDSRV Granule Ids.

The <logfilename> parameter specifies the log file the deletion process should use to write deletion activity.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The -DFA parameter specifies that the granules will be deleted from the Archive.

The -noprompt parameter specifies that the granules should be deleted without confirmation from the user.

4.10.4.2.41 Display Science Granules Specified by Short Name, Version Id and Data Temporal Range

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-begindate <date>

-enddate <date>

-display

This command displays the science granules that would be deleted if the command was executed without the -display. The science granules are specified by parameters <ESDT ShortName> and <ESDT_VersionID> within the temporal range specified by parameters <begindate> and <enddate>.

The <logfilename> parameter specifies the log file where the candidate science granules are written. The SDSRV Granule Id and Local Granule Id is written to the log for each science granule that is a candidate for deletion.

The SDSRV Granule Id and Local Granule Id of each candidate granule is displayed to the user along with the total number of granules.

4.10.4.2.42 Display Science Granules Specified by Short Name, Version Id and Insert Time Range

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-name <ESDT ShortName>

-version <ESDT VersionID>

-insertbegin <date>

-insertend <date>

-display

This command displays the science granules that would be deleted if the command was executed without the -display. The science granules are specified by parameters <ESDT ShortName> and

<ESDT_VersionID> within the insert time range specified by the parameters <insertbegin> and <insertend>.

The <logfilename> parameter specifies the log file where the candidate science granules are written. The SDSRV Granule Id and Local Granule Id is written to the log for each science granule that is a candidate for deletion.

The SDSRV Granule Id and Local Granule Id of each candidate granule is displayed to the user along with the total number of granules.

4.10.4.2.43 Display Science Granules Specified by Short Name, Version Id and Local Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-localgranulefile <filename>

-display

This command displays the science granules that would be deleted if the command was executed without the -display. The science granules are specified by parameters <ESDT ShortName> and <ESDT_VersionID> and Local Granule Id.

The <logfilename> parameter specifies the log file where the candidate science granules are written. The SDSRV Granule Id and Local Granule Id is written to the log for each science granule that is a candidate for deletion.

The -localgranulefile parameter specifies the file that contains the science granules to delete. The file contains ESDT Short Name, ESDT Version ID and Local Granule Id.

The SDSRV Granule Id and Local Granule Id of each candidate granule is displayed to the user along with the total number of granules.

4.10.4.2.44 Display Science Granules Specified SDSRV Granule Id

The command has the form:

EcDsGranuleDelete

ConfigFile usr/ecs/CUSTOM/<MODE>/cfg/EcDsGranuleDelete.CFG

ecs_mode <MODE>

-log <logfilename>

-geoidfile <filename>

-display

This command displays the science granules that would be deleted if the command was executed without the -display. SDSRV Granule Id specifies the science granules.

The <logfilename> parameter specifies the log file where the candidate science granules are written. The SDSRV Granule Id and Local Granule Id is written to the log for each science granule that is a candidate for deletion.

The -geoidfile parameter specifies the file that contains the science granules to delete. The file contains SDSRV Granule Ids.

The SDSRV Granule Id and Local Granule Id of each candidate granule is displayed to the user along with the total number of granules.

4.10.4.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.10.4.3.1 Interfaces and Data Types

Table 4.10.4-2 lists the supporting products that this tool depends upon in order to function properly.

Table 4.10.4-2. Interface Protocols

Product Dependency	ProtocolsUsed	Comments
SDSRV and all clients	DCE	via client libraries

4.10.4.4 Databases

The Granule Deletion Administration tool does not include the direct managing of any database. It has an interface with the Science Data Server Data Base: however this interface is based on a simple parameter passing function. For further information of the Science Data Server Data Base refer to 311-CD-107-005, *Science Data Server Database Design and Schema Specifications for the ECS Project*.

4.10.4.5 Special Constraints

The Granule Deletion Administration Tool runs only if the Science Data Server is running in the background. Note also that at the moment the Granule Deletion Administration Tool is started through a command line that specifies the configuration file that is used to initialize the application.

4.10.4.6 Outputs

None

4.10.4.7 Event and Error Messages

None

4.10.4.8 Reports

None

4.10.5 Product Distribution System (PDS) Stand Alone (PDSSA) User Interface

PDSSA is a COTS package developed by the United States Geological Survey (USGS) at the Eros Data Center (EDC). PDSSA has been integrated with ECS to support the distribution of ordered product data to science users for delivery on 8 mm tape, DLT, DVD-ROM and CD-ROM media.

PDSSA interfaces with the ECS Order Tracking function to provide status on the progress of filling an order and with the ECS Science Data Server (SDSRV) for obtaining the product to be delivered.

PDSSA supports three independently invoked Oracle Forms-based user interfaces. The first interface, the PDS Operator Interface (PDSOI), provides basic support for starting and completing jobs, separating active jobs from inactive ones, and to manage the routine product distribution process. The second interface, the PDS Maintenance Interface (PDSMI), allows lead operations personnel to perform maintenance on the database parameters controlling the distribution process. The third interface, the PDS Job Monitor (PDSJM), complements the PDSOI by providing more detailed job status. It lists running PDS jobs and displays the specific stage of each job. On request, it presents detailed job information to support problem investigation.

This document provides an introductory overview of the PDS user interfaces in the ECS environment. A detailed description of the PDS user interface is provided in the document, *Product Distribution System Stand Alone (PDSSA) User Guide*, USGS/EDC, PDS-114, dated March 2001.

4.10.5.1 Quick Start Using PDS

Each of the three PDS user interfaces is invoked through a unique Unix script. Prior to invoking these scripts the DISPLAY environment variable should be initialized as shown:

>**setenv DISPLAY <machine_id>**

Following the setting of the DISPLAY variable; to invoke the primary operations support interface, PDSOI, enter:

>**pdsoi &**

To invoke the PDSMI, enter the following command:

>**pdsmaint &**

To invoke the PDSJM, enter the following commands:

>**cd <PDS home directory>** (Change the directory to the PDS home directory)

>**jobmonitor &**

Entry of these commands result in the display of the main screens associated with the support category as described in the following section.

4.10.5.2 PDSOI Main Screen

Figure 4.10.5-1 is the PDSOI Main screen at startup. The pulldown list at center-screen is used to select a machine on which to run. The user then enters a console ID.

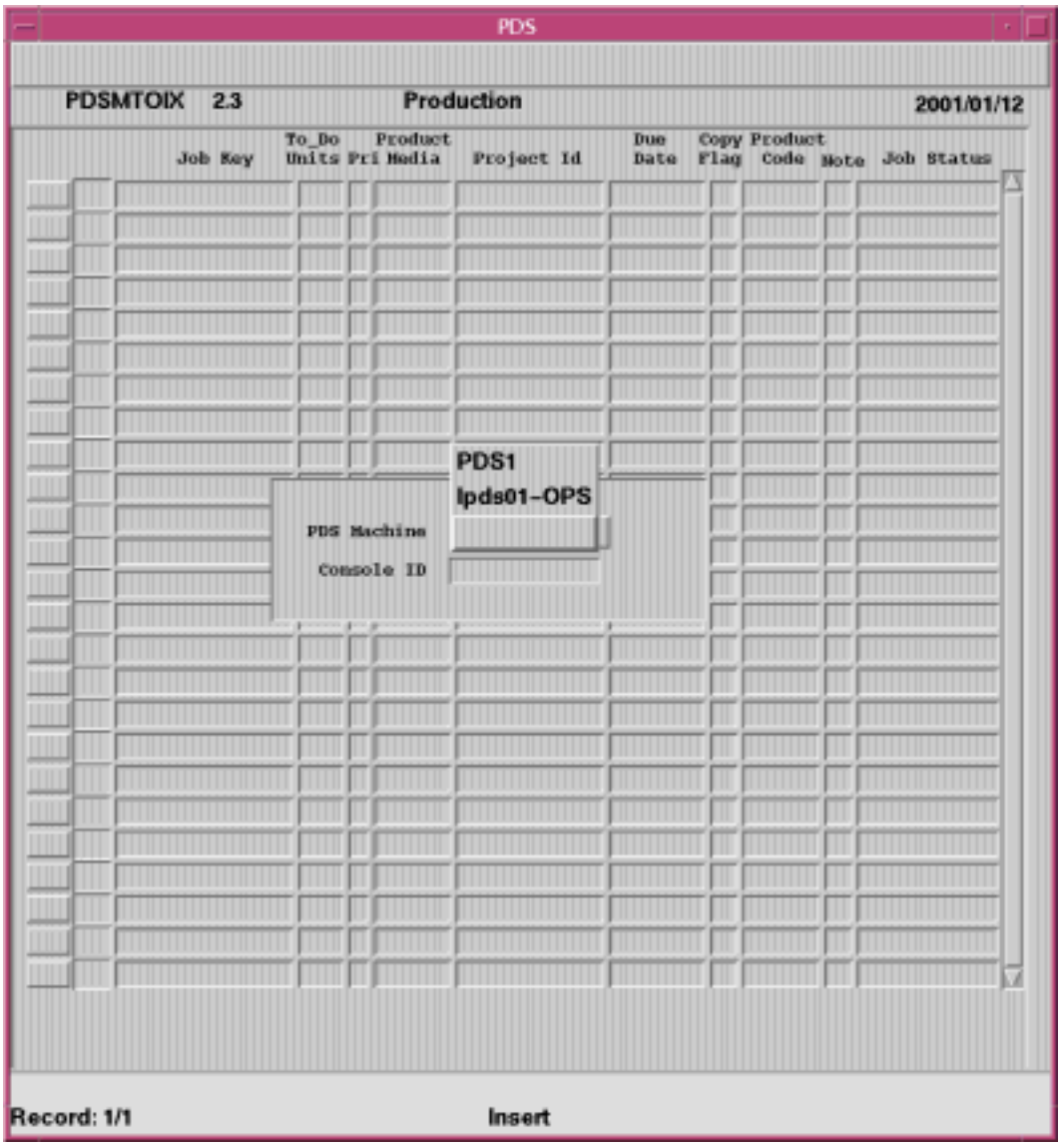

Figure 4.10.5-1. PDS Main Screen at Startup

On selection of a machine and entering an operator ID on the PDS Main Screen at startup, the Selection Criteria screen appears.

4.10.5.2.1 PDSOI Selection Criteria Screen

Figure 4.10.5-2 is the Selection Criteria screen. It allows for selection of **ALL** or a subset of the PDS jobs to be presented based on **Priority**, **Product Media** type, exceeding the **Due Date**, or **Product Code**.

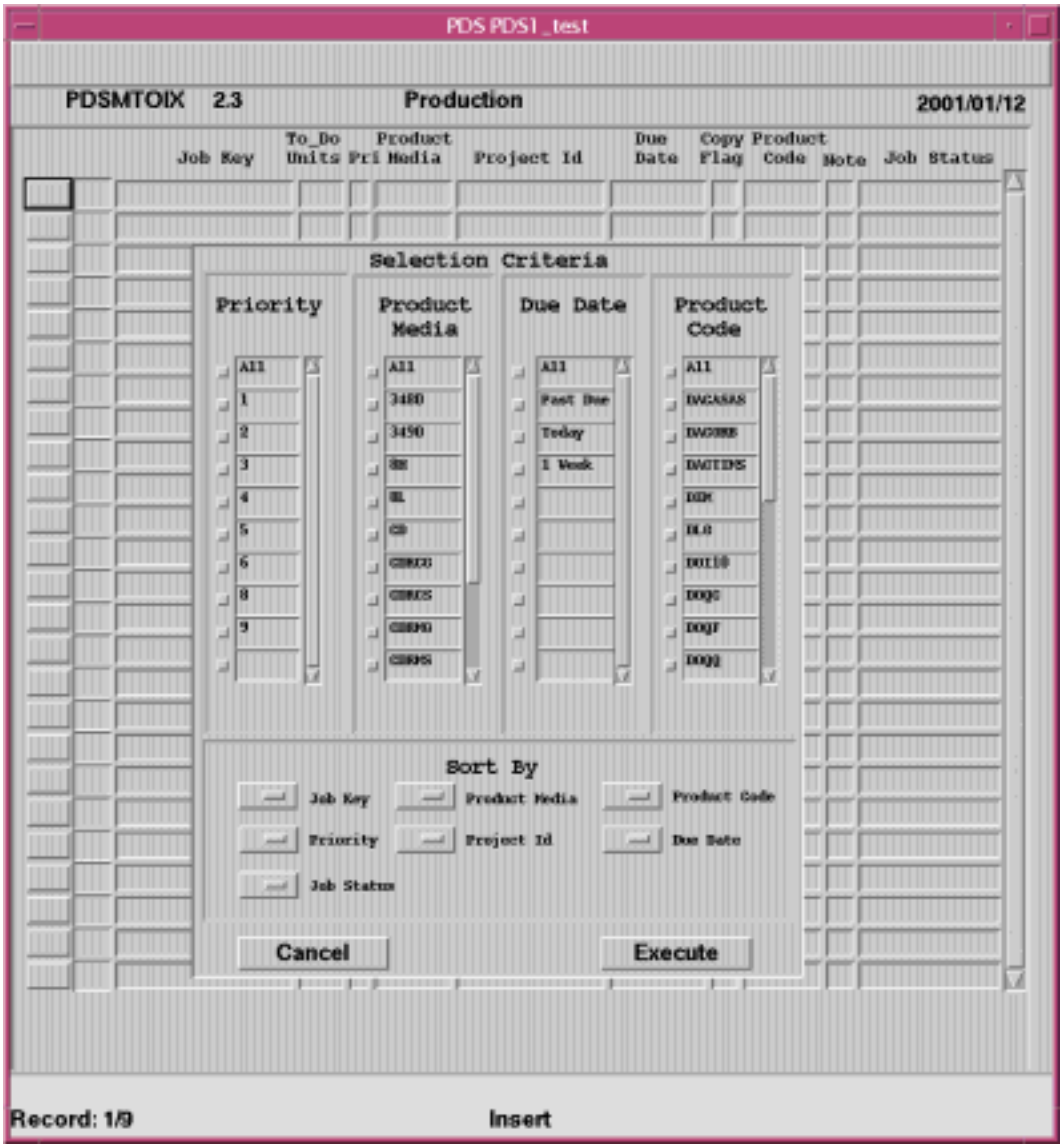

Figure 4.10.5-2. Selection Criteria Screen

The Selection Criteria screen also allows for selection of a sorting criteria to apply to the displayed jobs such as Job Key, Priority, Job Status, Product Media, Project ID, Product Code, and Due Date. Sorting order is determined by the sequence the criteria are specified. For instance, if Priority and Job Key are selected as the sort criteria, the jobs are listed in priority order and then

job key within a priority level. On selecting the jobs to be displayed and the sorting criteria, hitting the Execute button causes the Querying Database screen to come up.

4.10.5.2.2 PDS Querying Database Screen

The Querying Database screen, shown in Figure 4.10.5-3, appears while PDS is querying the database and creating the job status list display per the user specified selection criteria.

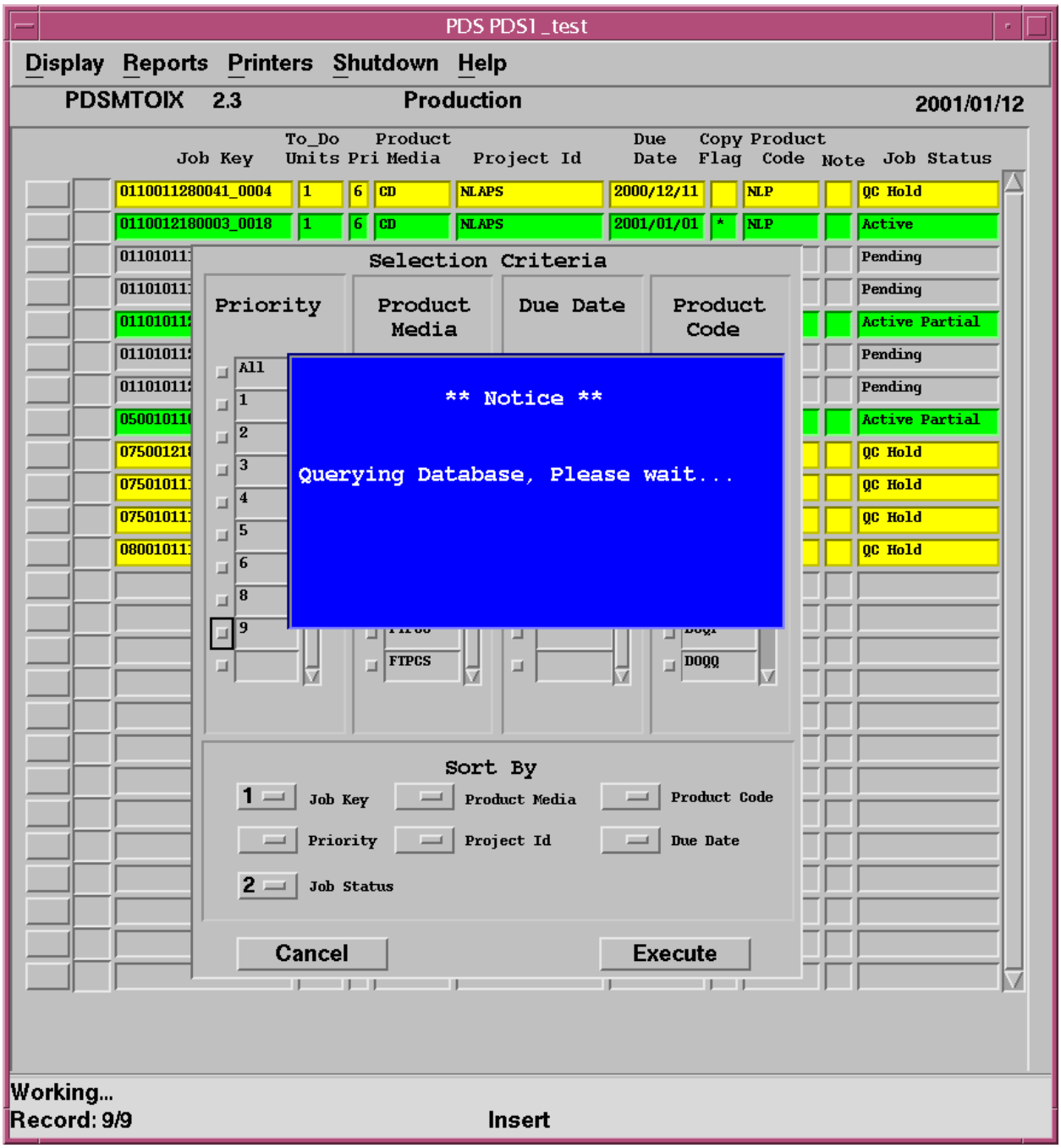

Figure 4.10.5-3. Querying Database ScreenÄ

On completion of the database query, the blue Querying Database screen disappears and the list of selected jobs is displayed. A job status line on the display contains an Action button, the Job Key, the To Do Units count, the Priority, the Product Media for delivery, the Project ID, the Due Date, a Copy Flag, a Product Code, a Note field, and the Job Status. The status of each displayed job is indicated by color code where:

- **Green** indicates an Active or Active Partial job.
- **Yellow** indicates the job is on Quality Control (QC) Hold or QC Hold Partial
- **Grey** indicates status is Pending
- **Red** indicates job Error or Error-Partial.

Pressing the Action button for a job produces a list of actions that can be taken on that job. These actions include:

- **Activate** - Starts the process of generating the data.
- **Detail** – Results in the display of the Detail window showing the status of all execution units for the job.
- **Complete** – Allows the operator to complete units within a job.
- **Stop Job** – Forces the job into STOP state.
- **Notes** – This action displays a Notes window for the job, which the operator can review and/or update.

4.10.5.2.3 PDS Maintenance Interface (PDSMI)

The second component of the PDSSA is the PDS Maintenance module. It allows a PDS lead operator to configure the database tables used by PDSOI. On invocation of the startup script, a login window appears requesting a login-id, password., and the database to be referenced. The database field does not need to be filled in as it will default to the correct database. Note also, that knowledge of the password for this function should be restricted to use by lead operations personnel. On hitting the Connect button on the login screen, the Maintenance Main Screen, shown in Figure 4.10.5-4 appears. It displays the database instance being run and 12 option buttons to select areas for review/update.

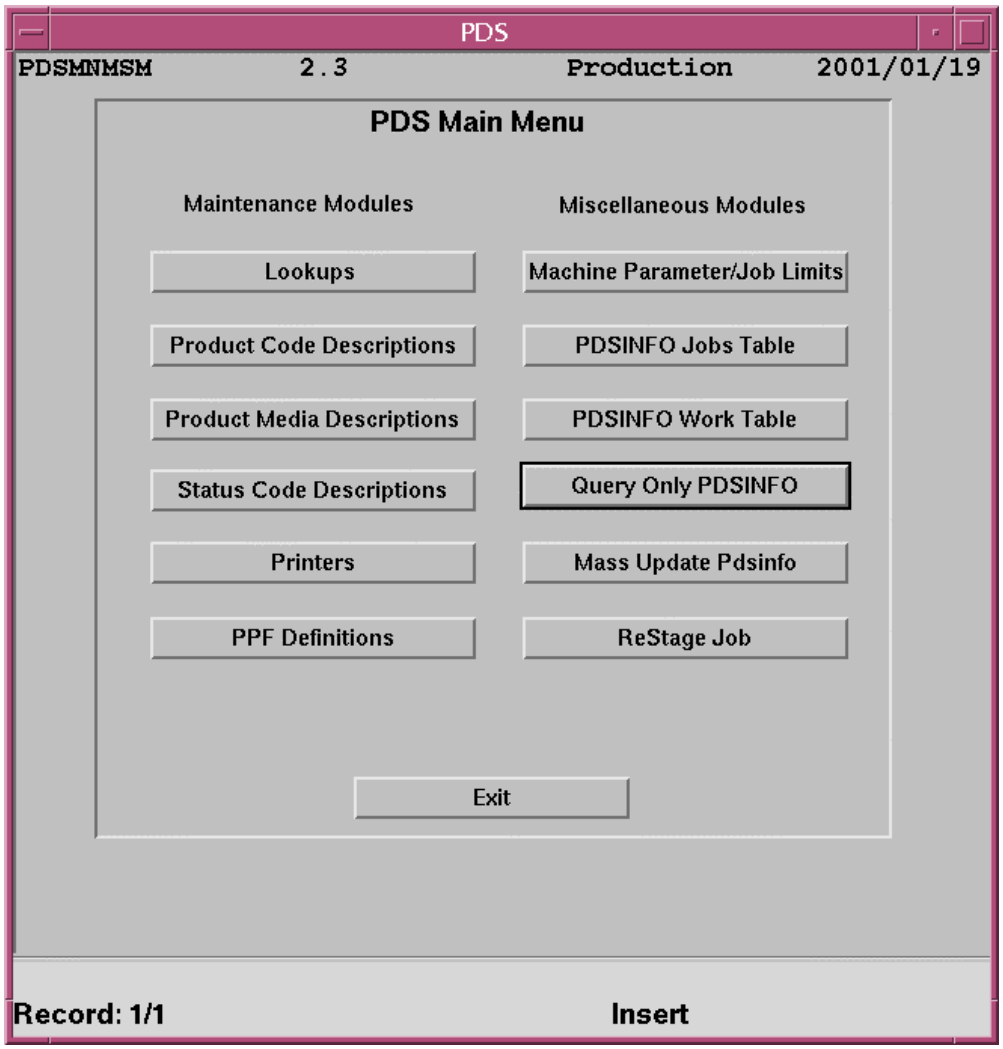

Figure 4.10.5-4. PDSMI Maintenance Main Screen

The **Maintenance Module** buttons include:

- **Lookups** – This button brings up the Lookups Maintenance Screen containing information from the table LKT_LOOKUPS_TBL. It contains items like defaults, pick lists, SQL code fragments etc. This form will be used mainly for display purposes. Records should never be added or deleted unless directed by the PDSOI software staff.

- **Product Code Descriptions** –This button brings up the Product Code Description Maintenance screen containing information from the table PVT_PRCDTBL_TBL. Every product code used in the pdsinfo table needs to have an entry in this table. All fields need to be completed in order for the PDSOI to use these Product Codes. Records should never be added or deleted from this form unless directed by the PDSOI software staff.

- **Product Media Descriptions** – This button invokes the Product Media Description Maintenance screen, which displays information in the table OUT_OTSPTBLV_TBL. Every output specification used in the pdsinfo table needs to have an entry in this table. All fields need to be filled in for the PDSOI to use these Product Media. Records should never be added or deleted from this form unless directed by the PDSOI software staff.

- **Status Code Descriptions** – This button brings up a screen containing status code descriptions.

- **Printers** – This button brings up the Printer Maintenance screen that contains information from the table PXT_PRINTERS_TBL. A table is needed to validate printers and edit check and limit the printers used for various printing tasks. This screen allows for querying records or adding records. When adding records, the Printer ID and Short Name are free form text you can type in. The Printer Type must match one of the choices from a standard list.

- **PPF Definitions** – This button brings up the PPF Definitions Maintenance screen displaying information from the table PTT_PDS_PPF_TBL. The .ppf file used by the product generation software is created using entries from this table. There are a number of records that have a Product Code value of "ALL". This means these fields will be included in every .ppf file created.

The **Miscellaneous Modules** buttons on the Maintenance Main screen include:

- **Machine Parameter/Job Limits** – This button brings up the Machine Parameters Maintenance screen containing information from the table MCT_MACHINFO_TBL. It contains machine specific information and is used mainly for display purposes. Records should never be added or deleted from this form unless directed by the PDSOI software staff. A query must be performed on the machine name to get to the job limits portion of this form. Once a query has been executed use the arrows to scroll to the Machine Id. Clicking on the "Next Block" button causes the detail portion of the form to appear. Note, the label on this button now changes to "Previous Block". Selecting this button brings back the machine parameters portion of the form. The master portion of the form will continue to be displayed, but the buttons will only work against the detail or Job Limit portion of the form. To maneuver back to the master or Machine Parameters Maintenance portion of the form, press the "Previous Block" button.

- **PDSINFO Jobs Table** –This button invokes the PDSINFO Jobs Table Maintenance screen, which contains information from the table PJT_PDSINFO_JOBS. This form is used when investigating and fixing error conditions. Many of the fields on the PDSOI Main screen derive from this table.

- **PDSINFO Work Table** – This button brings up the PDSINFO Table Maintenance screen containing information from the table PWT_PDS_WORK_TBL, as well as some fields from the PDT_PDSINFO table. Because this form has fields from two tables, it is best when making changes to save the changes before proceeding.

- **Query Only PDSINFO** – This button brings up the Query Only PDSINFO form, which allows for browsing of all PDS orders currently or historically in the system. This form, unlike most of the maintenance forms, is a "QUERY ONLY" type. With this form you can query the records in the PDT_PDSINFO table. These records can be viewed but not changed. An attempt to change fields using this form result in the message, "*Field is protected against update*".

- **Mass Update Pdsinfo** . This button brings up the Mass Update PDS form which is used to make mass updates to the status of an order. Use this form to change the status of a number of units within an order. To change one or two units, use the PDSINFO Table Maintenance form.

- **ReStage Job** – This button brings up the Reset Stage Units to Q Status screen. This is used to reset units to a "Q" status that have been previously completed and no longer show up on the PDSOI. This form deletes units from the table PWT_PDS_WORK_TBL if they are still there, and the units are reinserted with values from the table PDT_PDSINFO and the status in the PDT_PDS_WORK_TBL are reset to a "Q" state. The units do not show up immediately on the PDSOI, but show up after the job_build Oracle procedure, "cron", has run. This could take up to 15 minutes.

4.10.5.2.4 PDS Job Monitor (PDSJM)

While the PDSOI provides a mechanism for operators to start and complete jobs, and to separate active from inactive jobs, it does not reveal a lot of detail as to the status of running jobs. Furthermore, it does not provide much information about the status of the PDS environment as a whole. This information is often useful, and sometimes crucial. To obtain this information, PDSSA provides the PDS Job Monitor user interface. On invoking the startup script for the Job Monitor, the screen in Figure 4.10.5-5 comes up.

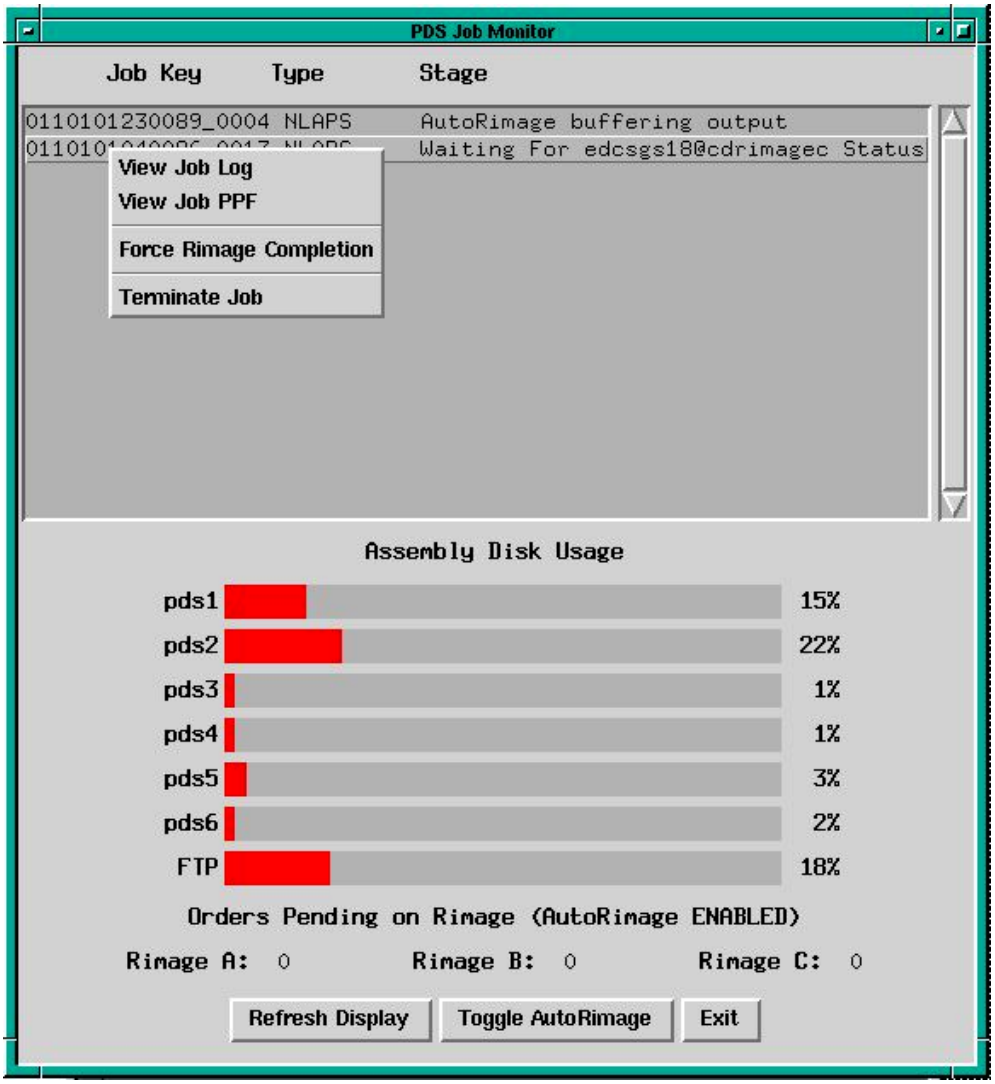

Figure 4.10.5-5. Job Monitor Main Screen

The PDS Job Monitor is intended to complement the PDSOI. It lists running PDS jobs and displays the specific stage of each job. It also displays detailed information about each job on request. Additionally, it displays information about available disk space and workload on the Rimage CD generation systems.

The Job Monitor can be used to verify consistency between the jobs the PDSOI reports as being active and the jobs actually active. For instance, if the PDS machine crashes and is brought back up, when the Operator Interface window is started, all the jobs that were active at the time of the crash still show up in an active state (even though none of them are actually running.) Under normal operation, the number of active jobs in the PDSOI match the number of active jobs in the Job Monitor. If any discrepancies occur, they can be easy to spot through a comparison of the contents of the two windows.

4.10.5.3 Required Operating Environment

The required operating environment for PDSSA is described in detail in the PDSSA User Guide document.

4.10.5.3.1 Interfaces and Data Types

PDSSA interfaces with the PDS Information Server developed by ECS to allow interaction in support of product generation, distribution and progress monitoring.

4.10.5.4 Databases

The PDSSA uses the Oracle database. A full description of the table structure is described in detail in the PDSSA User Guide document.

4.10.5.5 Special Constraints

None

4.10.5.6 Outputs

The PDSSA user interface supports interactions with operations staff in support of routine distribution activities, maintaining the database controlling the distribution process, and monitoring and controlling detailed distribution job status.

4.10.5.7 Event and Error Messages

A description of the event and error messages generated by the PDS user interface is described in the PDSSA User Guide document.

4.10.5.8 Reports

The reporting capabilities supported by the PDS user interface are described in the PDSSA User Guide document.

4.11 User Services Tools

This section describes the User Services tools used by DAAC operators:

1. User Account Management GUI
2. Order Tracking
3. Data Dictionary Maintenance Tool
4. Subscription Editor
5. Database Installation and Maintenance Scripts
6. Database Replication Scripts
7. Landsat 7 Error Handling Tool
8. Restricting Access to ESDTs and Granules Scripts
9. Science Data Server Command Line Interface (SCLI)

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4.11.1 User Account Management GUI

DAAC and SMC operators use the User Account Management GUI to process new account requests and manage existing ones. There are two versions of the User Account Management GUI – the DAAC version and the SMC version. This is due to the fact that user profiles are read-only at the DAACs and read/write at the SMC. The main difference between the two is that the SMC version contains two tabs and extra buttons to allow the operator to perform various account creation and update functions. Since the GUIs are nearly identical, this section will be used to describe both. A clear indication will be given, however, when a specified feature is not available on the DAAC GUI. DAAC operators are able to use the SMC GUI to maintain DAAC accounts by logging into the SMC and running the SMC GUI remotely.

The User Account Management SMC GUI, shown in Figure 4.11.1-1, contains two tabs: the **Request Account** tab and the **Profile Account** tab. The **Request Account** tab allows operators to create ECS accounts. The **Profile Account** tab allows an operator to retrieve and update an existing account, delete an account, view an entire user profile, and view any modifications made to an account. The User Account Management GUI is used to perform the operator functions listed in Table 4.11.1-1 below.

Table 4.11.1-1. ECS Operator Functions Performed with the User Account Management GUI (1 of 2)

Operating Function	GUI/Command	Description	When and Why to Use
Create a registered user account (only available at SMC)	• Request Account tab – – fill out information (personal, addresses, account), then click on Create Account button	Creates a DCE account and a profile in Sybase	When a pending request is approved
Update an existing account (only available at SMC)	• Profile Account tab – highlight the existing account to be updated – modify the information (personal, addresses, account), then click Apply Edit button	• Updates account information in Sybase • View Edit button allows the operator to view which information has been modified	When account information needs to be updated
Delete account (only available at SMC)	• Profile Account tab – highlight user account – click on Delete Account button	• Deletes a registered user account (DCE account and profile) • User account will be deleted from the database table • A pop up dialog box appears to confirm the operation	When an account is no longer required by the user

Table 4.11.1-1. Common ECS Operator Functions Performed with the User Account Management GUI (2 of 2)

Operating Function	GUI/Command	Description	When and Why to Use
View User Account Profile	• Profile Account tab – highlight user account – click on View Entire Profile button	Displays user's personal and account information, mailing, shipping and billing addresses	To obtain a summary of user account information on one "page"
Change Aster category (only available at SMC)	• Profile Account tab – select DAR information tab – select new Aster category in the Aster Category Combo box – click on Apply Edit button	Changes existing Aster category to a new one	As necessary
Delete Dar privilege (only available at SMC)	• Profile Account tab – select DAR information tab – click on Apply Edit button	Delete DAR privilege	As necessary
Sort list of user profile or Request Account	• Click on the item label of title bar in the list box	Sort user profile or request list	As necessary

4.11.1.1 Quick Start Using User Account Manager

To execute the User Account Manager GUI from the command line prompt, enter:

>EcMsAc<DAAC/SMC>RegUserGUIStart <mode>

Where:

DAAC is used if the GUI is installed at a DAAC and **SMC** is used if the GUI is installed at the SMC

<mode> is the ECS mode in which to operate, e.g. **OPS**, **TS1**.

Refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series for a listing of EcMsAc<DAAC/SMC>RegUserGUIStart parameters.

4.11.1.2 User Account Management Main Screen

The User Account Management GUI main screen is shown in Figure 4.11.1-1 with the Profile Account tab (SMC only) selected. From this screen, an operator has access to both the Request Account tab and the Profile Account tab information. The menu bar allows the operator to exit the application using the File pulldown menu or obtain additional help through the Help pulldown menu. The Edit pulldown menu is not supported as of this release.

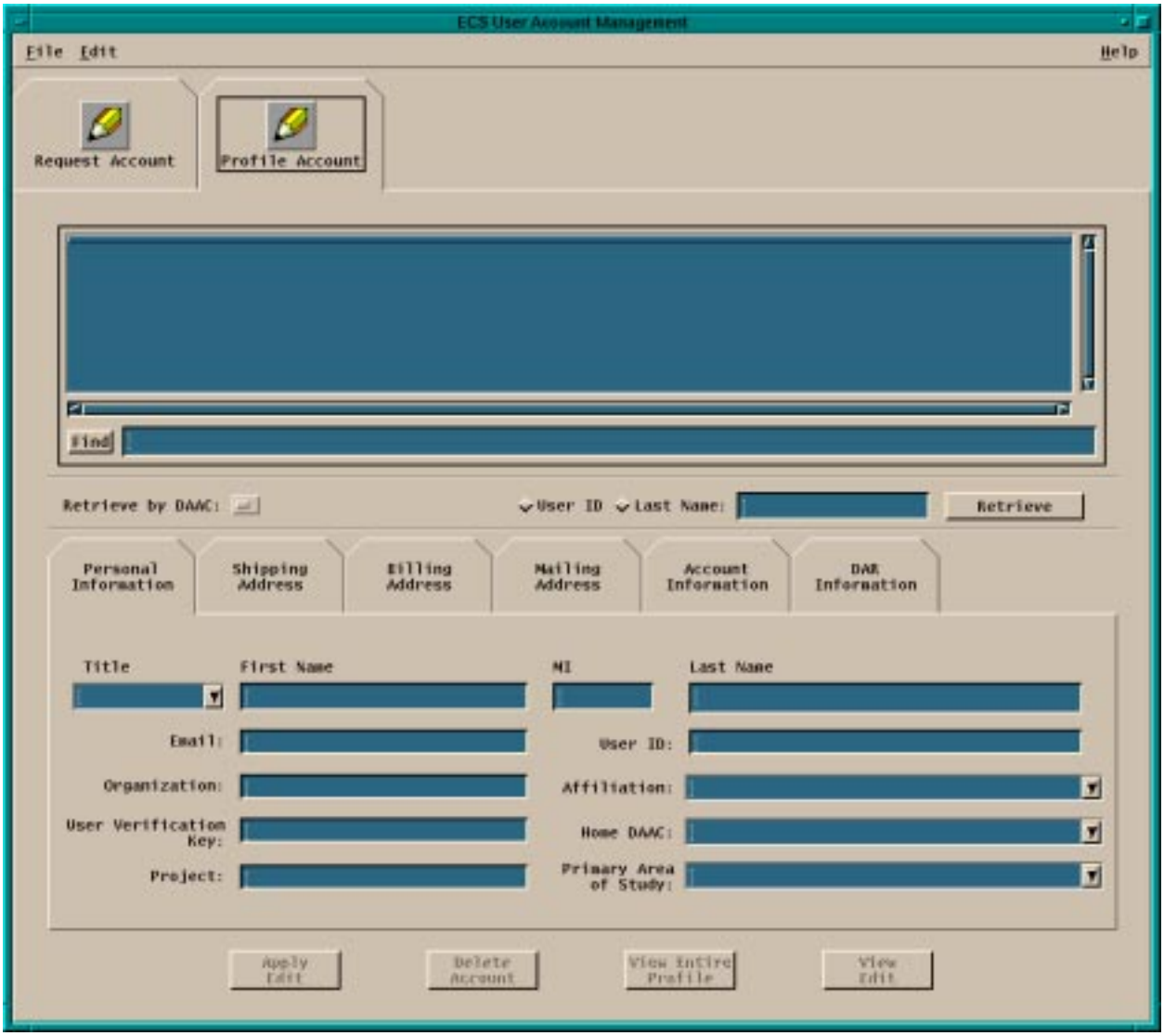

Figure 4.11.1-1. User Account Manager Main Screen

4.11.1.2.1 Request Account Tab (SMC only)

The Request Account tab, shown in Figure 4.11.1-2, has five subtabs that display information such as personal identification, mailing, billing, and shipping addresses, and account data.

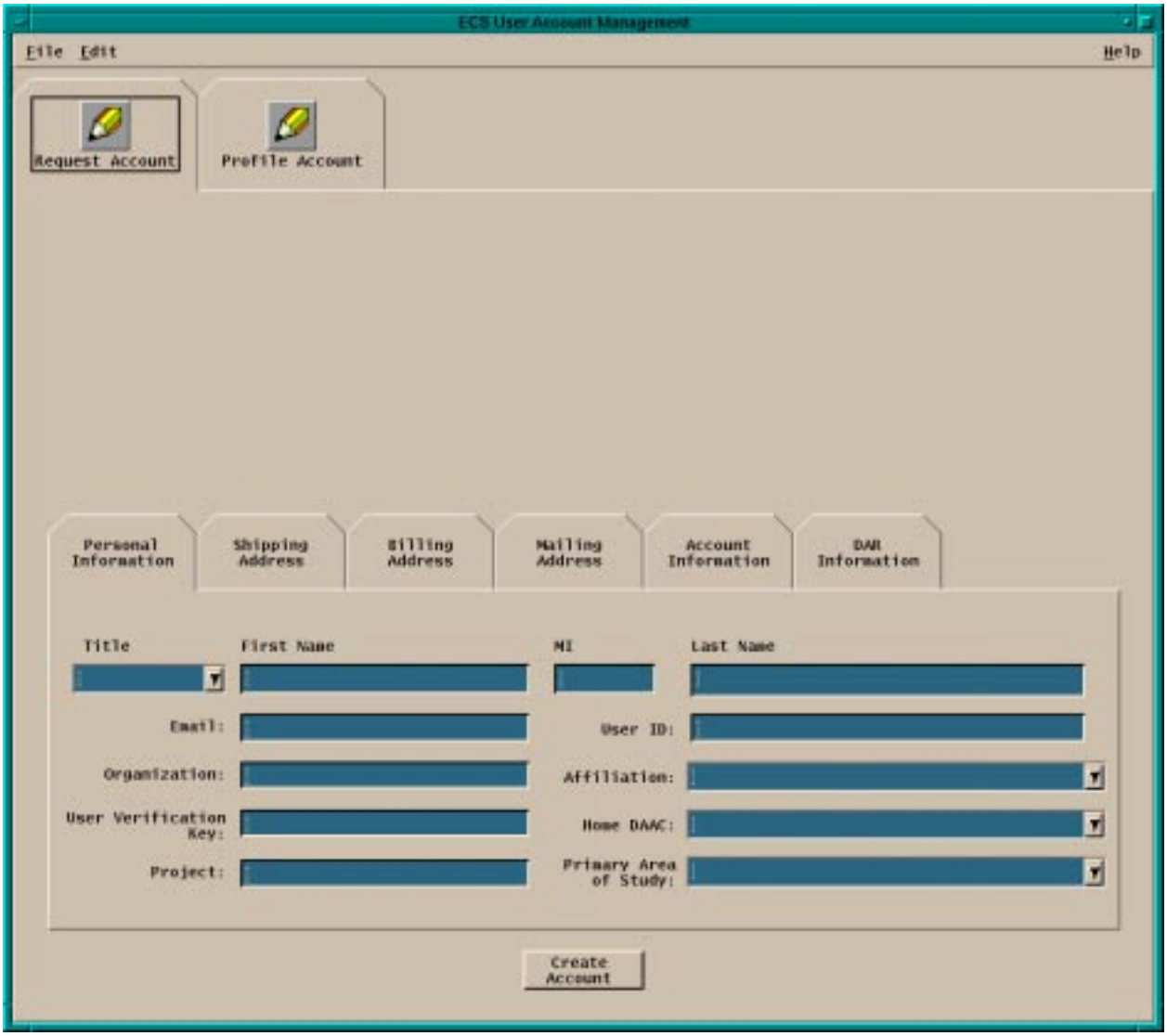

Figure 4.11.1-2. Request Account Tab with Edited Areas Highlighted

In addition, the following pushbutton is provided for the Request Account tab at the SMC:

Create Account -- creates an ECS user account. An ECS login userID and V0 Client authenticator will be given to the user.

4.11.1.2.1.1 Personal Information Subtab

The Personal Information subtab of the Request Account tab, shown in Figure 4.11.1-2, is used to record personal information about the user requesting an account. Table 4.11.1-2 describes the data fields on this subtab.

Table 4.11.1-2. Personal Information Subtab Field Description

Field Name	Data Type	Size	Entry	Description
Retrieve	Selection	n/a	optional default: Pending	retrieves summary information on users requesting an account by pending status, denied status, or all
Title	Character	5	optional, selection from dropdown list	title (e.g., Mr., Dr., Mrs., etc.)
First Name	Character	20	required	• first name of user requesting an account • retrieved from database table
MI	Character	1	optional	• middle initial of user requesting an account • retrieved from database table
Last Name	Character	20	required	• last name of user requesting an account • retrieved from database table
Email	Character	256	required	• email address of user requesting an account • retrieved from database table
User ID	Character	12	optional	• ID number of user requesting an account • retrieved from database table
Organization	Character	31	optional	• organization for a user (e.g., Hughes) • retrieved from database table
User Verification Key	Character	20	Optional (SMC - when creating a profile do not fill this field)	• user Verification Key • retrieved from database table
Affiliation	Character	16	optional, selection from dropdown list	• government, university, etc. • retrieved from database table
Project	Character	30	optional	• EOS, etc. • retrieved from database table
Home DAAC	Character	12	required, selection from dropdown list	• DAAC that user requesting an account is assigned to • retrieved from database table
Primary Area of Study	Character	20	optional, selection from dropdown list	• research field • retrieved from database table

4.11.1.2.1.2 Address Subtabs (Mailing, Shipping, and Billing)

These three subtabs provide fields specifying where to send the user's mail, shipments, and bills. Figure 4.11.1-3 is a sample of the Mailing Address subtab. Because these subtabs contain identical fields to collect the different address information, only one figure is being shown.

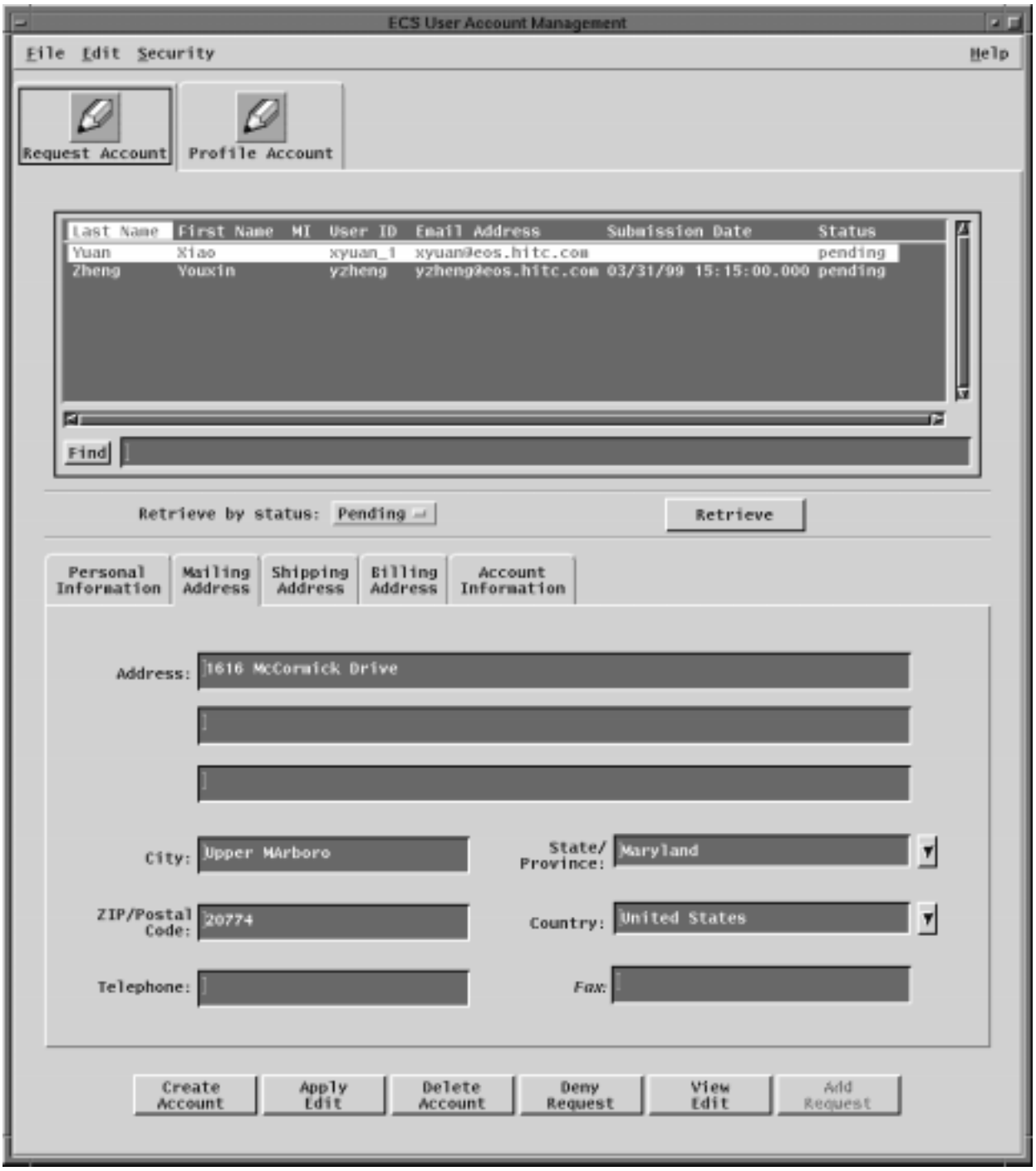

Figure 4.11.1-3. Mailing Address Subtab

Table 4.11.1-3 describes the fields contained in the Mailing, Shipping, and Billing Address subtabs.

Table 4.11.1-3. Mailing, Shipping, and Billing Address Tab Field Description

Field Name	Data Type	Size	Entry	Description
Title (Ship and Bill Tabs only)	Character	5	optional	• Title
First Name (Ship and Bill Tabs only)	Character	20	optional	• First Name
Middle Initial (Ship and Bill Tabs only)	Character	1	optional	• Middle initial
Last Name (Ship and Bill Tabs only)	Character	20	optional	• Last Name
Address (1)	Character	32	optional	• street name address of user requesting an account, line 1 • retrieved from database table
Address (2)	Character	32	optional	• street name address of user requesting an account, line 2 • retrieved from database table
Address (3)	Character	32	Optional	• street name address of user requesting an account, line 3 • retrieved from database table
Organization	Character	31	optional	• Name of Organization
City	Character	30	optional	• city name address of user requesting an account • retrieved from database table
State/Province	Character	20	optional, selection from dropdown list	• state name address of user requesting an account • retrieved from database table
Country	Character	30	optional, selection from dropdown list	• country name address of user requesting an account • retrieved from database table
ZIP/Postal Code	Character	15	optional	• zip code of user requesting an account • retrieved from database table
Telephone	Character	22	optional	• telephone number of user requesting an account • retrieved from database table
Fax	Character	22	optional	• facsimile (fax) number of user requesting an account • retrieved from database table

4.11.1.2.1.3 Account Information Subtab

The Account Information subtab shown in Figure 4.11.1-4 contains information such as date that an account was created and revised, when the account expires, privilege level and media preference.

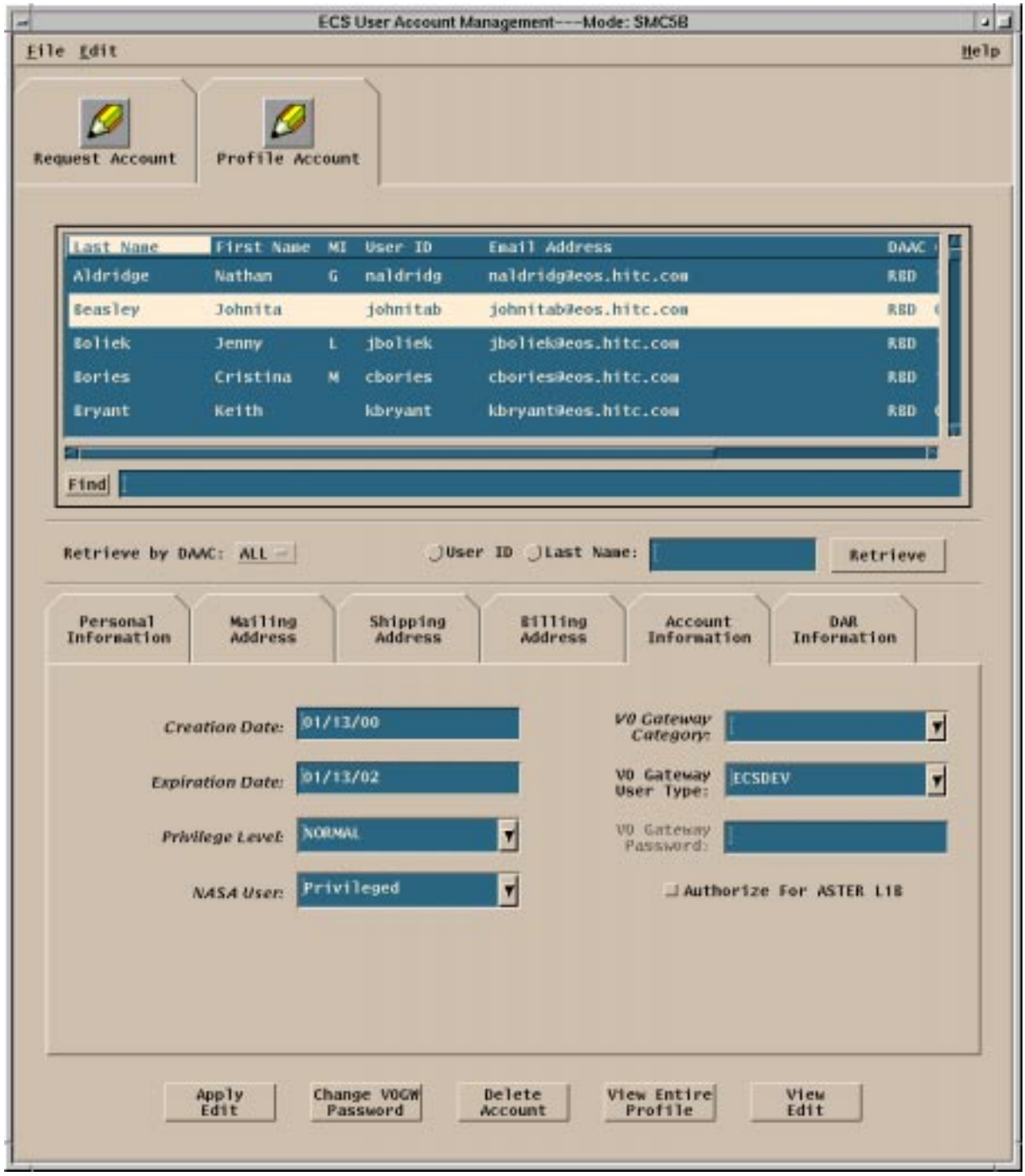

Figure 4.11.1-4. Account Information Subtab

Table 4.11.1-4 describes the Account Information subtab fields.

Table 4.11.1-4. Account Information Subtab Field Descriptions

Field Name	Data Type	Size	Entry	Description
Creation Date	Character	20	system generated	date that the account was created
Expiration Date	Sybase smalldatetime	see Sybase references	operator input, optional	date that the account expires
Account Number	Character	20	system generate from SmartStream Accounting Software	ECS account number
Privilege Level	Character	10	operator input, optional selection from dropdown list	user privilege level, for example: high, low
NASA User	Character	1	operator input, optional, selection from dropdown list	NASA user, “Y” or “N”
V0Gateway User Type	Character	50	required for create an account, operator input, selection from dropdown list	V0 client gateway user type, assigned by operator
V0 Gateway Password	Character	20	required for create an account, operator input	used to generate V0 gateway unique authenticator, assigned by operator
Access Privilege	Character	8	Operator input, optional selection from dropdown list	Access privilege such as access L1B data

Figure 4.11.1-5 is the Print Dialog popup which appears when an account has been created. Hitting the Ok button on this dialog generates a printout of the created account.

Figure 4.11.1-5. Print Dialog Popup When Account Created

4.11.1.2.2 Profile Account Tab

The Profile Account tab shown in Figure 4.11.1-6 provides the means for displaying/ finding/sorting user information. It has six subtabs that contain user information such as personal identification, addresses, and account information. The menu bar allows the operator to exit the application using the File pulldown menu or obtain additional help using the Help pulldown menu.

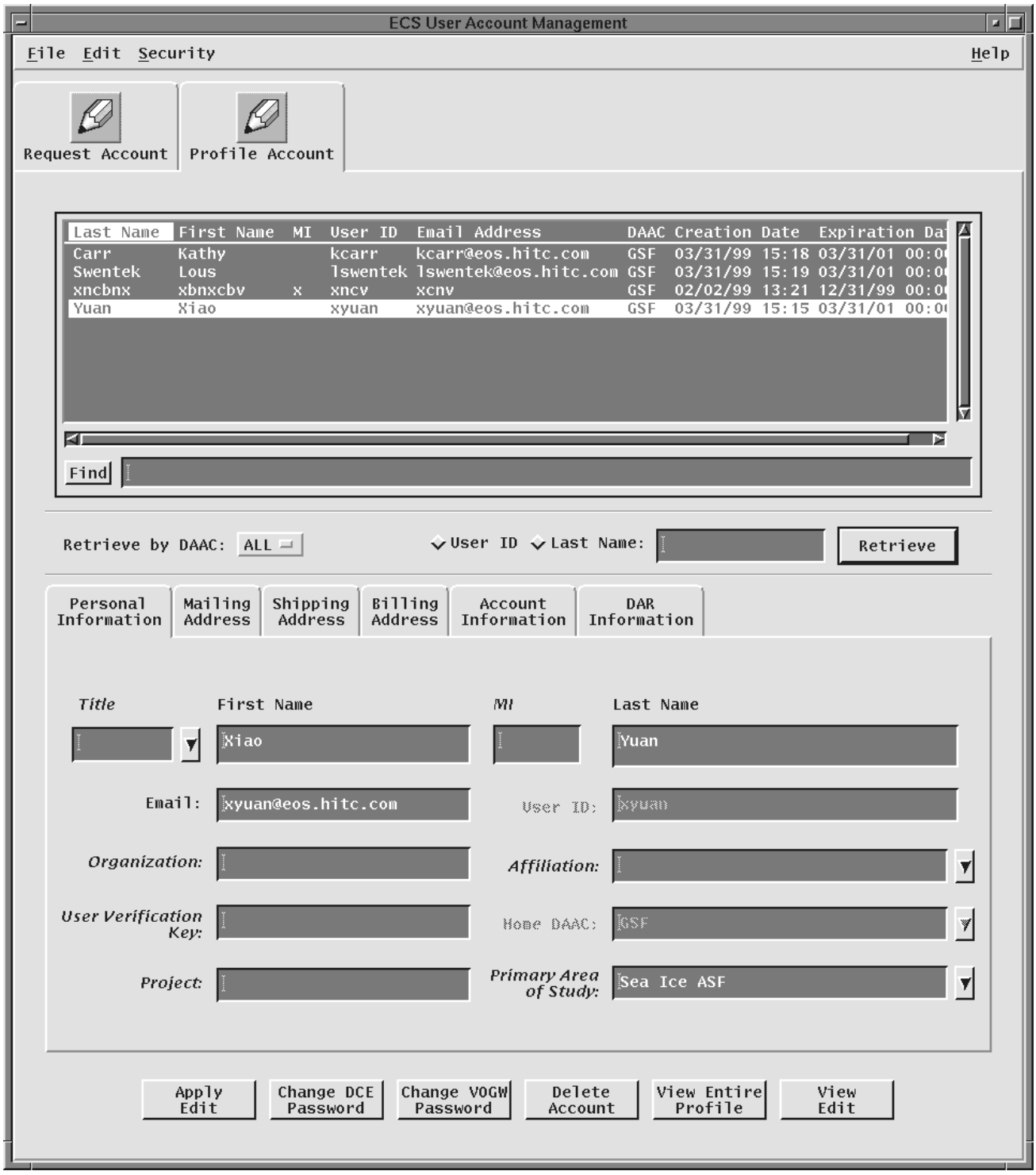

Figure 4.11.1-6. Profile Account Tab

In addition the following pushbuttons are provided:

- **Apply Edit** (available only at SMC) -- a confirmation dialog appears as shown in Figure 4.11.1-7 before allowing the operator to update the edited information to the user profile database

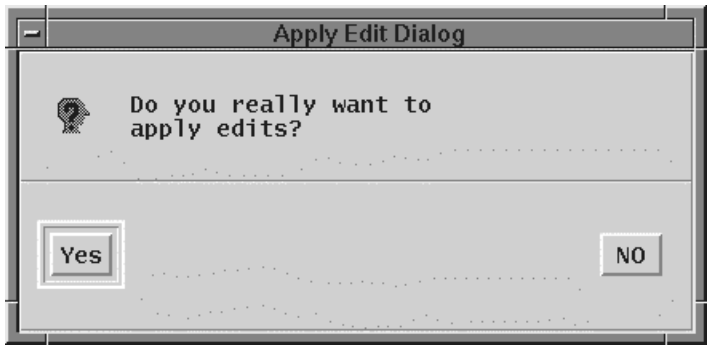

Figure 4.11.1-7. Apply Edit Dialogue Popup

- **Delete Account** (available only at SMC) -- a confirmation dialog appears before allowing the operator to delete an ECS account, including its DCE account and profile from the database. This confirmation dialogue is similar to that shown in Figure 4.11.1-7.
- **View Entire Profile** – view entire user profile in a one page screen as shown in Figure 4.11.1-8. This screen contains the information from the Personal Information subtab, Mailing Address subtab, Shipping Address subtab, and Billing Address subtab.

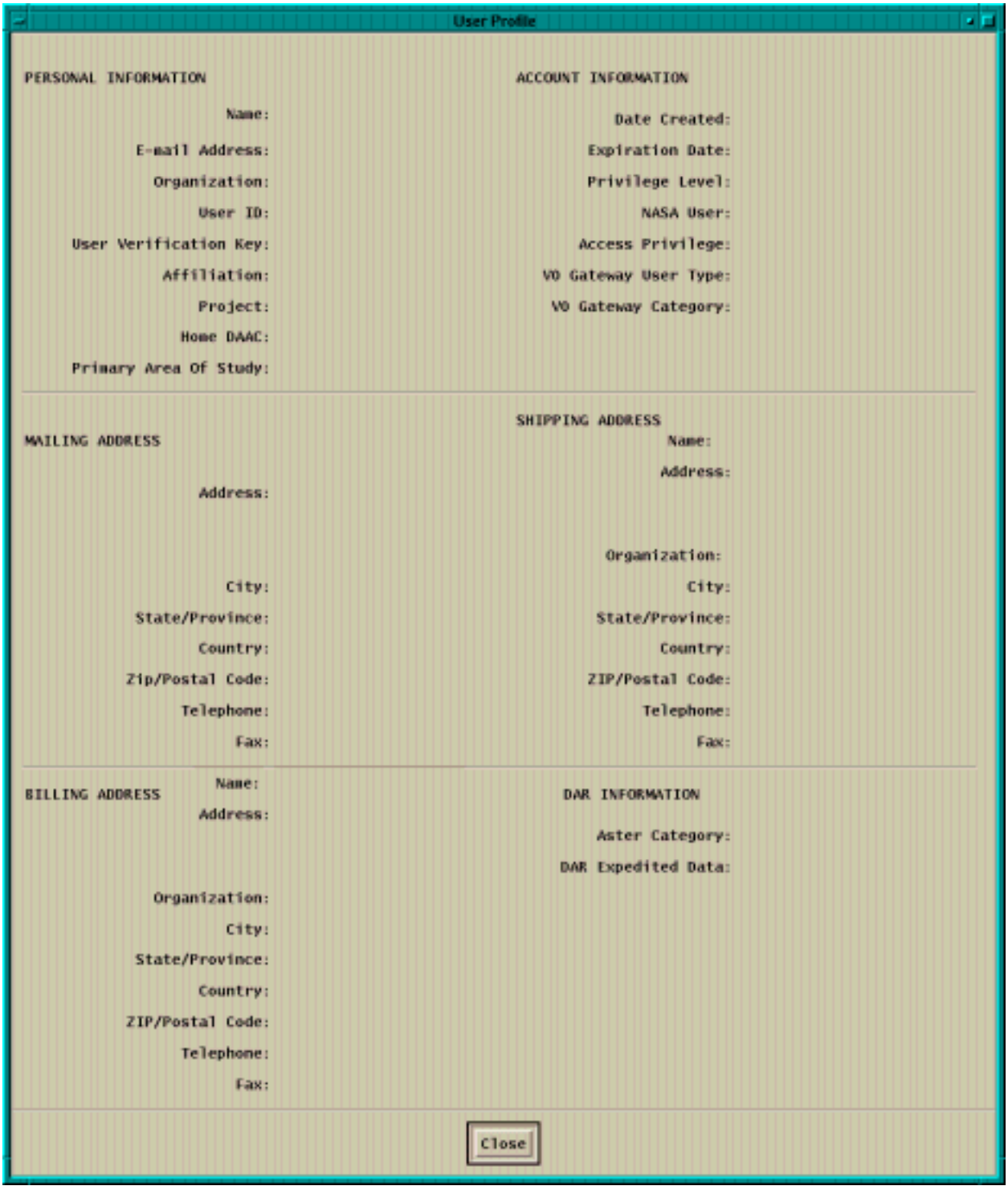

Figure 4.11.1-8. View Entire Profile Screen

- **View Edit** (available only at SMC) -- is used to view modifications made to a user's account. When this button is pressed, the tabs that contain information that has been edited will be highlighted. For example, Figure 4.11.1-9 indicates that one or more Mailing Address and Account Information fields have been edited. Note, however, the individual fields that have been edited are not highlighted.

Figure 4.11.1-9. Profile Account with Edited Areas Highlighted

4.11.1.2.2.1 Personal Information Subtab

The Personal Information subtab of the Profile Account tab shown earlier in Figure 4.11.1-6 is used to record personal information about an existing account. Table 4.11.1-2 describes the fields on this subtab.

4.11.1.2.2.2 Address Subtabs (Mailing, Shipping, and Billing)

These three subtabs provide fields to fill in the mailing, shipping and billing address information for the user. The screens are identical to those shown earlier in the Request Account tab description.

4.11.1.2.2.3 Account Information Subtab

The Account Information subtab contains information similar to that explained earlier in the Request Account tab description.

4.11.1.2.2.4 DAR Information Subtab

The Data Acquistion Request (DAR) Information subtab shown in Figure 4.11.1-10 contains information about a DAR user.

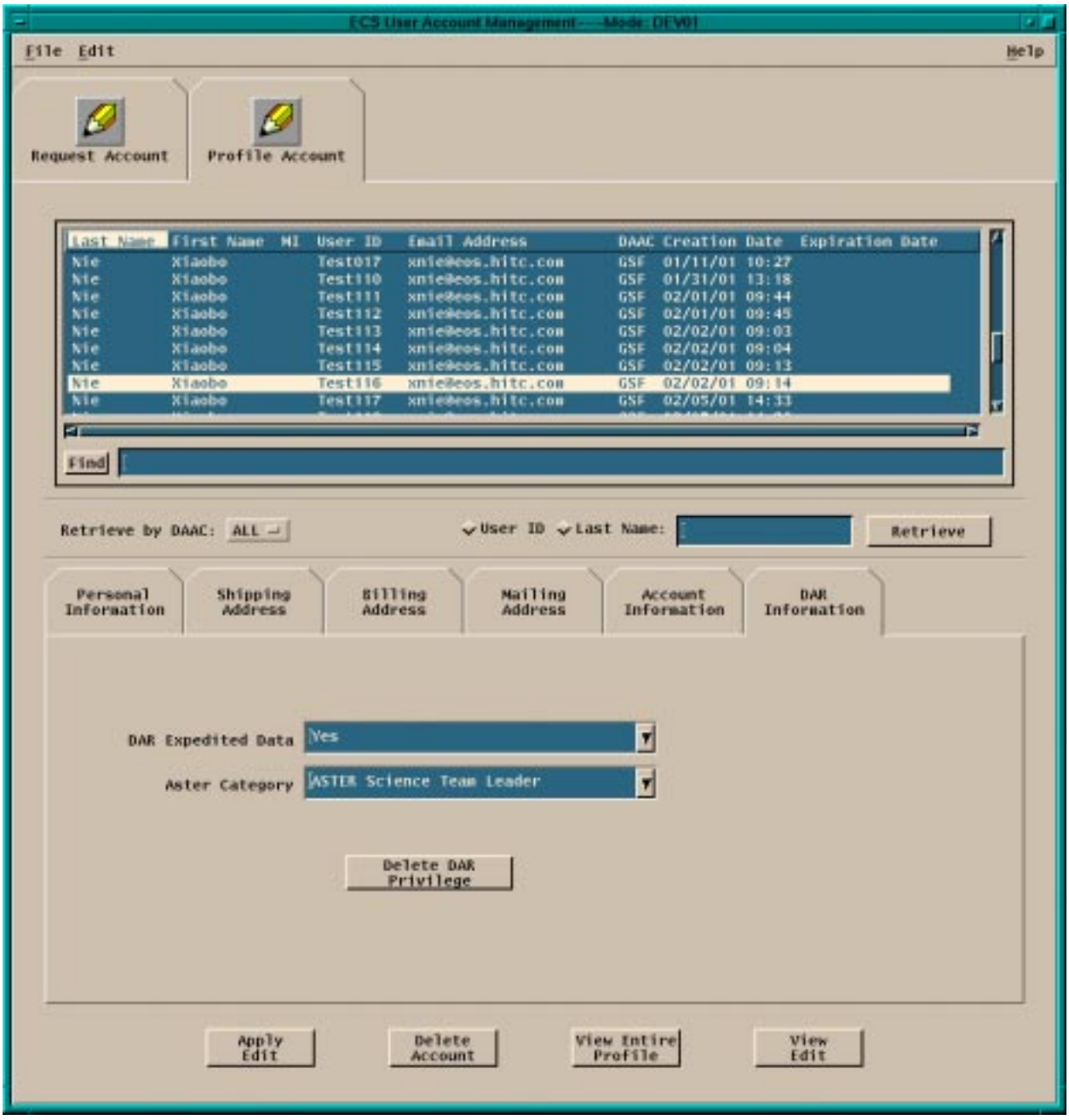

Figure 4.11.1-10. DAR Information Subtab

Table 4.11.1-5 describes the DAR Information subtab fields.

Table 4.11.1-5. Account Information Field Description

Field Name	Data Type	Size	Entry	Description
DAR expedited data	Logical (Yes/No)	see Sybase for details	Display, selection from dropdown list	"Yes" indicates user can request expedited data; "No" indicates user is not authorized to request expedited data.
Aster category	Character	20	optional, operator input, selection from dropdown list	Aster category refers to Science user categories.
Delete DAR Privilege	Push button		optional, operator input	• Set Aster category to 0 • Set DAR expedited data to "No" • Send an email to Japan which indicates Aster category is 99 Note: 0 is a non-valid value (e.g., a deleted privilege), but 99 is sent to ASTER via Email because 0 is non-valid. See previous description.

4.11.1.3 Required Operating Environment

For information on the operating environment, tunable parameters and environment variables of The User Account Manager refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.11.1.3.1 Interfaces and Data Types

User Account Manager exchanges data with Sybase, using Rogue Dbtools++ as the primary interface protocol.

4.11.1.4 Databases

The User Account Manager stores user profile data in table MsAcUsrProfile in the MSS database (Sybase). The MSS database for Release 4 is described in the *Management Support Subsystem Database Design and Schema Specifications*, 311-CD-105-005. The operator may have to identify individual data fields by examination of the descriptions in the documentation.

4.11.1.5 Special Constraints

There are no special constraints to running the DAAC User Account Manager. To run the SMC User Account Manager, the operator needs to have an SMC UNIX account and must be entered in the operator permissions database at the SMC. A DAAC operator will only be able to view/modify records at the SMC that are associated with their home DAAC.

4.11.1.6 Outputs

Outputs from the Account Manager GUI are the information displayed on the screens described in Section 4.11.1.2 and error messages.

4.11.1.7 Event and Error Messages

User Account Manager issues both status and error messages to screen and log file. Both event and error messages are listed in Appendix A.

4.11.1.8 Reports

The User Account Manager application does not generate reports.

4.11.2 Order Tracking

The Order Tracking tool provides the capability to track order status and its associated request status. The operator can retrieve orders by user name, order ID, or request ID. Order and request status are displayed on a graphic user interface (GUI). Operators can query orders by different states using pre-defined selections. The Order Tracking tool is used to perform the following operating functions listed in Table 4.11.2-1.

Table 4.11.2-1. Common ECS Operator Functions Performed with the Order Tracking Tool (1 of 2)

Operating Function	GUI	Description	When and Why to Use
Query order	• ECS Data Order Tracking GUI • Query Order button	Retrieves orders by Order ID, Request ID, User name, External Request Id, External Request Id and User Id displays them in the window at the bottom of the screen. There are four types of orders that can be retrieved by using the Order Type combination box: All, Standard, On Demand, Standing on Demand or MTMGW.	To see the status of an order or its associated requests
Filter orders	• ECS Data Order Tracking GUI • Filter by Status toggle buttons • Select All and Deselect All pushbuttons	• Orders can be filtered by their status (e.g., pending, canceled) • Orders can be filtered using all status selections • Filter selections can be cleared	To narrow the search for orders to what the operator wants
Update order	• ECS Data Order Tracking GUI • Update Order button	Update status and description of selected order	To update the status and description of order
Shipping information	• Query Requests button from the ECS Data Order Tracking GUI • Shipping Information GUI	Displays shipping information for an order	To determine the destination for an order
Query request	• Query Requests button on ECS Data Order Tracking GUI	Retrieves requests for an order	To see the status of a request

Table 4.11.2-1. Common ECS Operator Functions Performed with the Order Tracking Tool (2 of 2)

Operating Function	GUI	Description	When and Why to Use
Delete request	• Delete Request button from the ECS Data Order Tracking GUI	Delete a request of the order	To delete the request for an order
Update request	• Update request button from the ECS data Order tracking GUI	Update the status and description of a request	Update the status and description for a request
Verify user selection	• select from user list • Verify User Selection GUI	Displays user names and addresses	To verify that the user selected is correct
Sort list of user orders or user requests	• click on the item label of title bar	Sort user order list or user request list	As needed.

4.11.2.1 Quick Start Using Order Tracking

4.11.2.1.1 Invoking Order Tracking From the Command Line Interface

To execute Order Tracking from the command line prompt use:

>**EcMsAcOrderGUIStart <mode>** where:

<mode> is the ECS mode in which to run**,** e.g., OPS, TS1**.**

Refer to the 920-TDx-013 “Custom Code Configuration Parameters” documentation series, for a listing of EcMsAcOrderGUIStart

4.11.2.2 ECS Data Order Tracking Main Screen

The Data Order Tracking main screen, shown in Figure 4.11.2-1, allows the operator to retrieve an order by user name, order ID, or request ID.

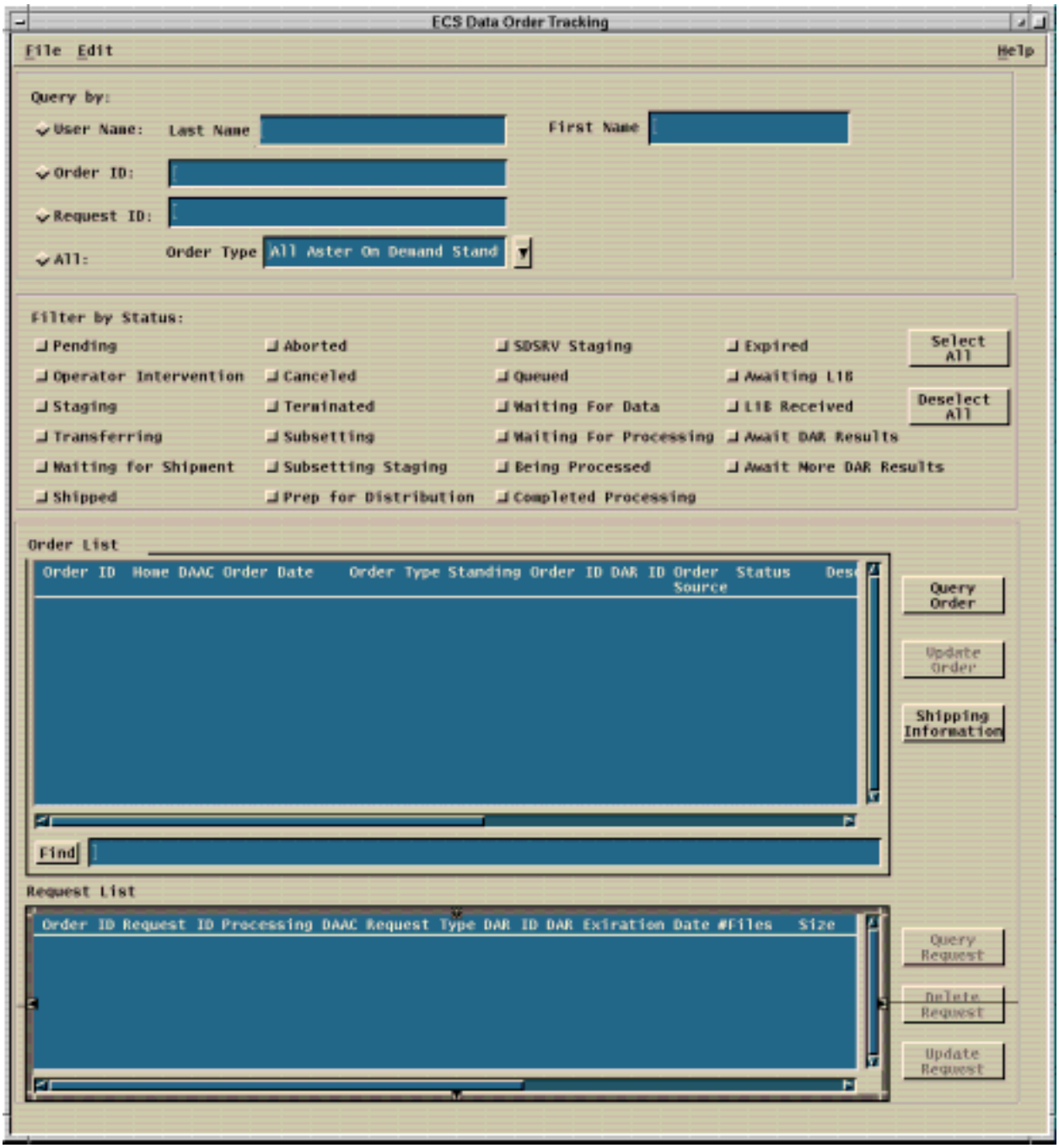

Figure 4.11.2-1. ECS Data Order Tracking

Table 4.11.2-2 describes the ECS Data Order Tracking fields.

Table 4.11.2-2. Order Tracking Main Screen Field Descriptions

Field Name	Data Type	Size	Entry	Description
Last Name	character	20	optional	user's last name
First Name	character	20	optional	user's first name
Order ID	character	10	optional	unique order id
Request ID	character	10	optional	unique request id
Ext. Request Id	character	10	optional	unique external request id
User Id	character	10	optional	unique user id
Order Type	character	10	optional	List of All, Standard, On Demand, Standing on Demand, MTMGW

The menubar gives the operator the following selections: File, Edit and Help.

- **File** – the only option available under this pulldown menu is to exit the Order Tracking tool
- **Edit** – provides "Clear Query Parameters" options to let user clean the all screen input.
- **Help** – brings up help question mark which can point to different button.

The user can filter an order by status. The **Filter by Status** choices include:

- Pending
- Operator Intervention
- Staging
- Transferring
- Waiting for Shipment
- Shipped
- Aborted
- Canceled
- Terminated
- Subsetting
- Subsetting Staging
- Prep for Distribution
- SDSRV Staging
- Queued
- Waiting for data
- Waiting for processing
- Being processed
- Completed processing
- Expired
- Awaiting L1B
- L1B received
- Awaiting DAR results
- Awaiting more DAR results
- The **Select All** button selects all items listed above
- The **Deselect All** button removes toggle buttons that had been selected

In addition, the following pushbuttons are available:

- The **Query Orders** button will search for orders based upon the parameters that have been selected and display them in the Order List scrollable window at the bottom of the screen. If only one order is found, all the requests related to this order will also be displayed in the Request List scrollable window.
- The **Update Order** button will update status and description of the order.
- The **Shipping Information** button brings up the Shipping Information GUI (see section 4.11.2.2.2)
- The **Query Request** button brings up the request list to the Request List scrollable window. The function is similar to the **Query Orders** button**.**
- The **Delete Request** button will delete request selected.
- The **Update Request** button will update status and description of the request.

4.11.2.2.1 Verify User Selection

When retrieving orders by user name, it's possible for identical user names to be found in the database. If the name selected is not unique in the database, the Verify User Selection screen (Figure 4.11.2-2) is displayed to pick from duplicate user names.

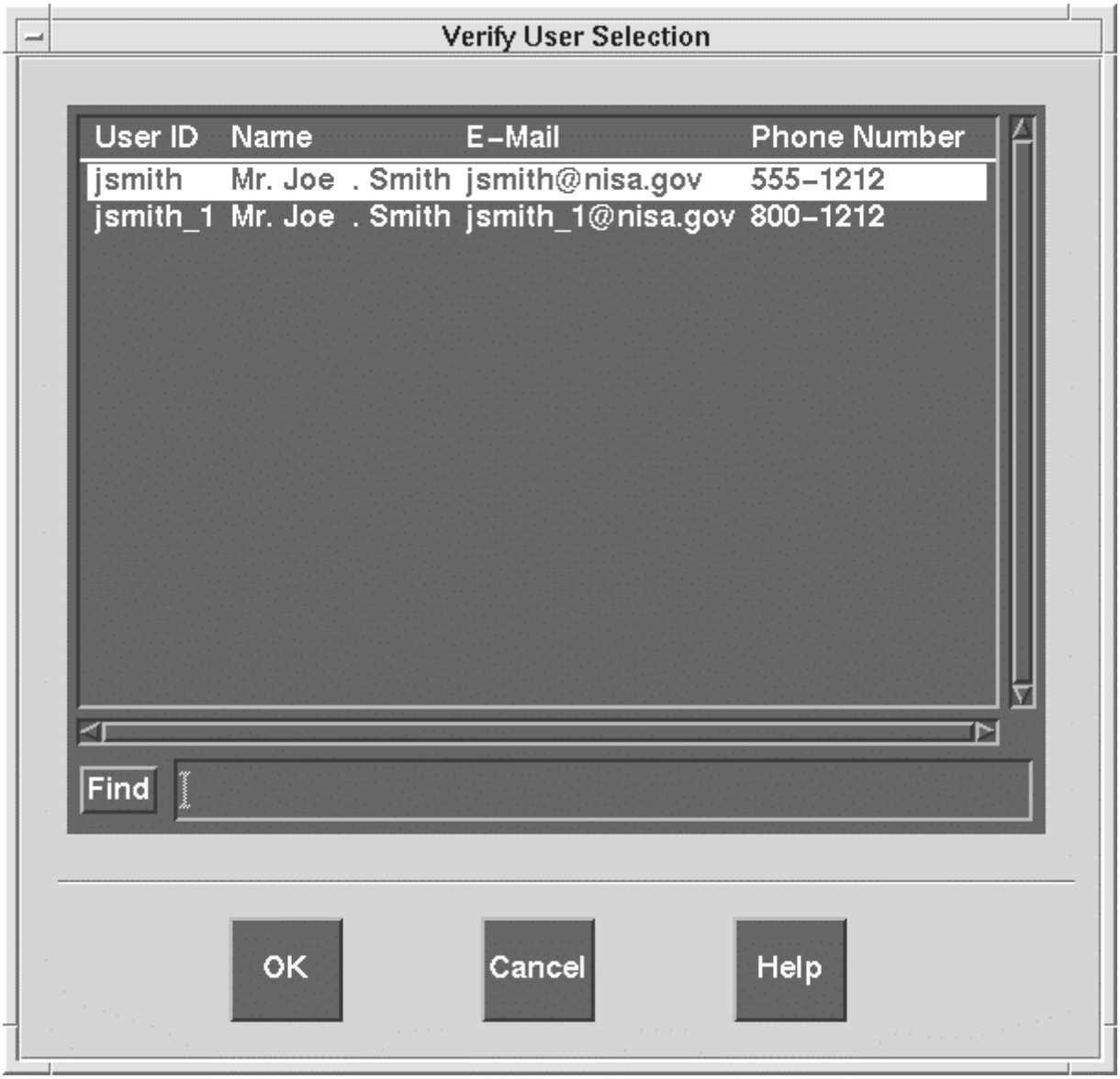

Figure 4.11.2-2. Verify User Selection GUI

In addition, the following pushbuttons are provided:

- The **Find** button allows the operator to search for different names
- The **OK** button accepts the highlighted section, retrieves order information and returns to main screen
- The **Cancel** button quits the Verify User Selection screen
- The **Help** button brings up help information box

4.11.2.2.2 Shipping Information Screen

The Shipping Information screen shown in Figure 4.11.2-3 provides shipping address information for an order when user clicks on the Shipping Information button.

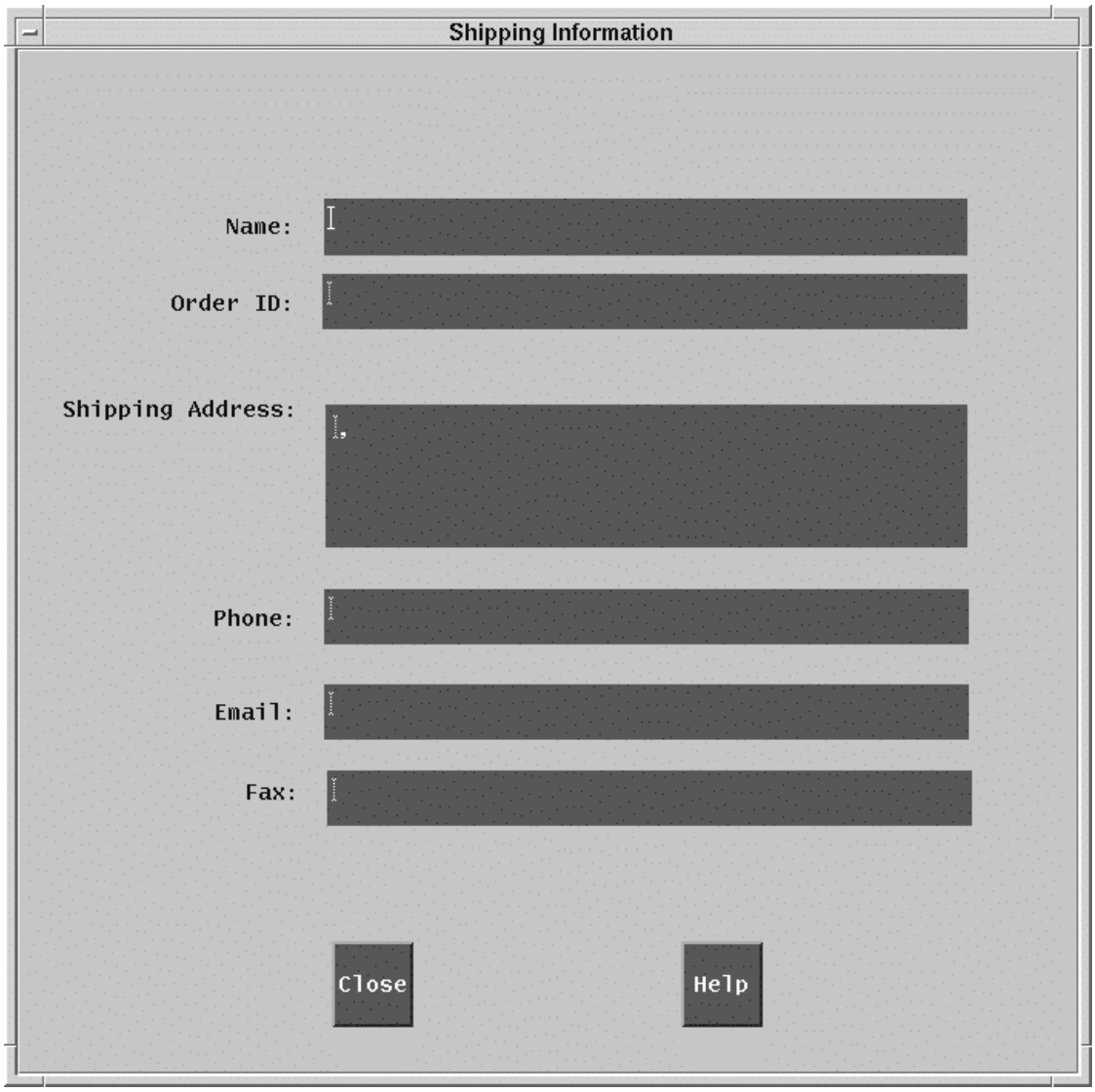

Figure 4.11.2-3. Shipping Information GUI

Table 4.11.2-3 describes the Shipping Information GUI fields.

Table 4.11.2-3. Shipping Information GUI Field Description

Field Name	Data Type	Size	Entry	Description
Name	character	41	system generated	who request the order
Order ID	character	10	system generated	unique order id
Shipping Address	character	139	system generated	shipping address for the order
Phone	character	22	system generated	phone number
Email	character	64	system generated	e-mail address
Fax	character	22	system generated	fax number

In addition the following pushbuttons are provided:

- **Close** – exits the screen and returns to the ECS Order Tracking GUI
- **Help** – brings up help information box

4.11.2.3 Required Operating Environment

For information on the operating environment, tunable parameters and environment variables of the Order Tracking Tool refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.11.2.3.1 Interfaces and Data Types

Order data comes from the V0 Gateway, V0 Client and database server.

4.11.2.3 Databases

The Order Tracking tool uses the MSS database installed at each DAAC. The database for Release 6 is described in the *Management Support Subsystem Database Design and Schema Specifications*, 311-CD-105-005. The operator may have to identify individual data field by examination of the descriptions in the document. The following tables are stored in the Sybase database: EcAcOrder, EcAcRequest, EcAcOrderId and EcAcRequestId. All parameters are generated and monitored by Sybase and cannot be modified by the operator.

4.11.2.5 Special Constraints

None

4.11.2.6 Outputs

Outputs from the Order Tracking GUI are the information displayed on the screens described in this section and error messages. Errors will be logged to a log file using process framework.

4.11.2.7 Event and Error Messages

The ECS Order Tracking GUI reports both status and error messages to the operator, and are listed in Appendix A.

4.11.2.8 Reports

The Order Tracking application does not generate reports.

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4.11.3 Data Dictionary Maintenance

The Data Dictionary Maintenance Tool (DDMT) GUI allows operators to perform common tasks associated with the upkeep of the Data Dictionary databases. The Data Dictionary is a large relational database, consisting of tables which provide information about the data collections making up the ECS system. Examples of the types of information stored in the Data Dictionary include the time and locations of data gathered, sensors and instruments used to gather the data, and locations where the data is stored. The DDMT GUI provides operators the capability to query the Data Dictionary Database in order to create, ingest, view, modify, and export data types.

The Tool is used to perform the following operator functions listed in Table 4.11.3-1

Table 4.11.3-1. Common ECS Operator Functions Performed with DDMT

Operating Function	Command/Script or GUI (Tab)	Description	When and Why to Use
Modify Data Dictionary Database	Modify Data	• Select the data type(*) • Edit the data type	To find and modify items or groups of related items in Data Dictionary database, update specific attributes, and create links to other items in the database.
Check and ingest Valids (Import Valids)	Import Valids File	To check the collection descriptions for any errors and, after correction, Ingest them into the Data Dictionary database.	To gather V0 attribute definitions to be used when mapping V0 terms to ECS terms
Map Attributes	Map Attributes/Keywords	To translate non-ECS terminology to ECS	When non-ECS terminology must be reconciled with ECS terminology.
Export Valids	Export Valids File	To send description of ECS data collections to agencies outside of ECS system.	To create valids files for delivery to external systems such as V0

(*) In this context, data type is a group of related data dictionary items such as Attributes, Collections, etc.

4.11.3.1 Quick Start Using Data Dictionary Maintenance

Before DDMT is used, the Data Dictionary Server must be up and running.

To execute DDMT from the command line prompt, enter:

/usr/ecs/<mode>/CUSTOM/bin/DMS/EcDmDdMaintenanceTool.csh <mode>

Where:

<mode> is the ECS mode under which the program is to run, e.g., OPS, TS1.

The .csh file is the UNIX "shared" file containing parameters for the tool.

4.11.3.2 DDM Main Screen

The DDMT main screen provides access to the DDMT function tabs. The DDMT GUI tool is broken down into four tabs: Modify Data, Import Valids File, Map Attributes/Keywords, and Export Valids File. The Modify Data tab is the default tab.

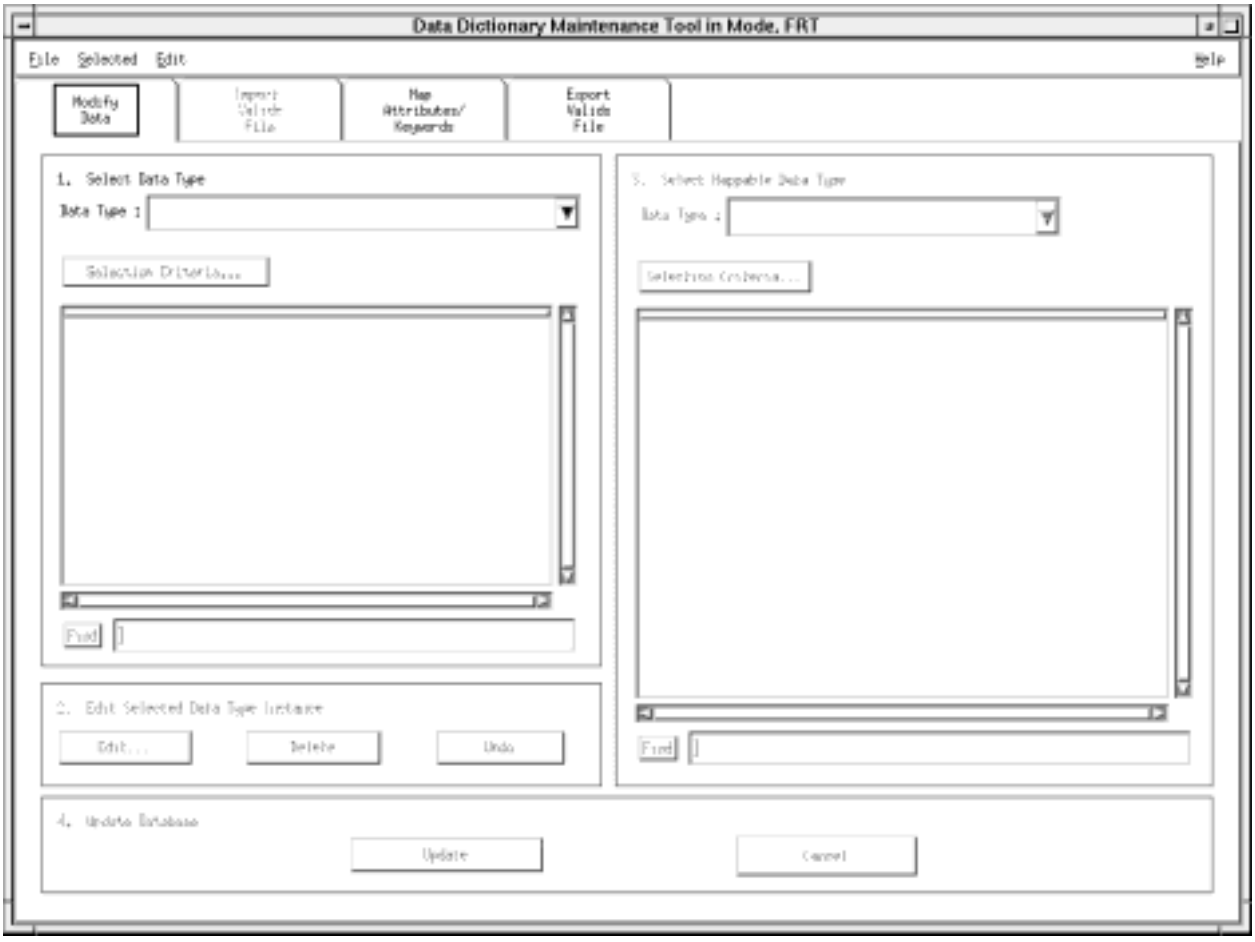

Figure 4.11.3-1. Data Dictionary Maintenance Main Screen Showing the Modify Data Tab

The operator can select from the menu bar items at the top of the DDMT window for getting help and activating less-frequently used secondary functions. The menu bar capability is available on all DDMT GUI screens. The following menus are available:

- **File -** provides a short cut for the users. This menu contains the following items:

  - New Attribute - Brings up the Attribute Editor screen, through which a new attribute can be inserted into the DataDictionary database.

  - Open - Desensitized.

  - Save and Save As - Desensitized.

  - Exit - Exit application

- **Selected** - provides operations to be performed. This menu contains the following options:

  – **Deselect All** - Desensitized.

  – **Select All** - Desensitized.

  – **Edit** - Desensitized.

- **Edit -** allows for pasting and cutting of text. This menu contains the following options:

  – **Undo** **:** Available to undo the previous action while a secondary keyword is selected.

  – **Cut** **:** Desensitized.

  – **Copy** : Desensitized.

  – **Paste** : Desensitized..

  Clear All **:** Clears all the list boxes and performs the first primary attribute database query.

  – **Delete** **:** Desensitized.

- **Help** - displays general and context sensitive help. This menu contains the following:

  – **On Help** - provides detailed help on using help.

  – **On context -** Displays help for the control/field selected after activating this button.

  – **On window -** Displays help for the window selected after activating this button.

  – **On Keys** - provides help on keyboard and mouse usage, and general help on interacting with user interface components.

  – **Index** Not available.

– **Tutorial** Not available.

– **On Version** Not available for Release 5.

Tabs - the Tabs open DDMT function screens (tabs) that are used to perform the functions associated with the tab title. These functions are described below in the sections for the tabs.

The data fields on the DDMT Main Screen are components of the individual tabs.

4.11.3.2.1 Modify Data Tab

The Modify Data tab allows the operator to edit ECS Core Attributes. Upon selecting 'Attribute' from the Data Type drop down list (Figure 4.11.3-1), the Selection Criteria button becomes sensitized. When this button is pushed, the Database List (Attributes) screen (Figure 4.11.3-2) is displayed.

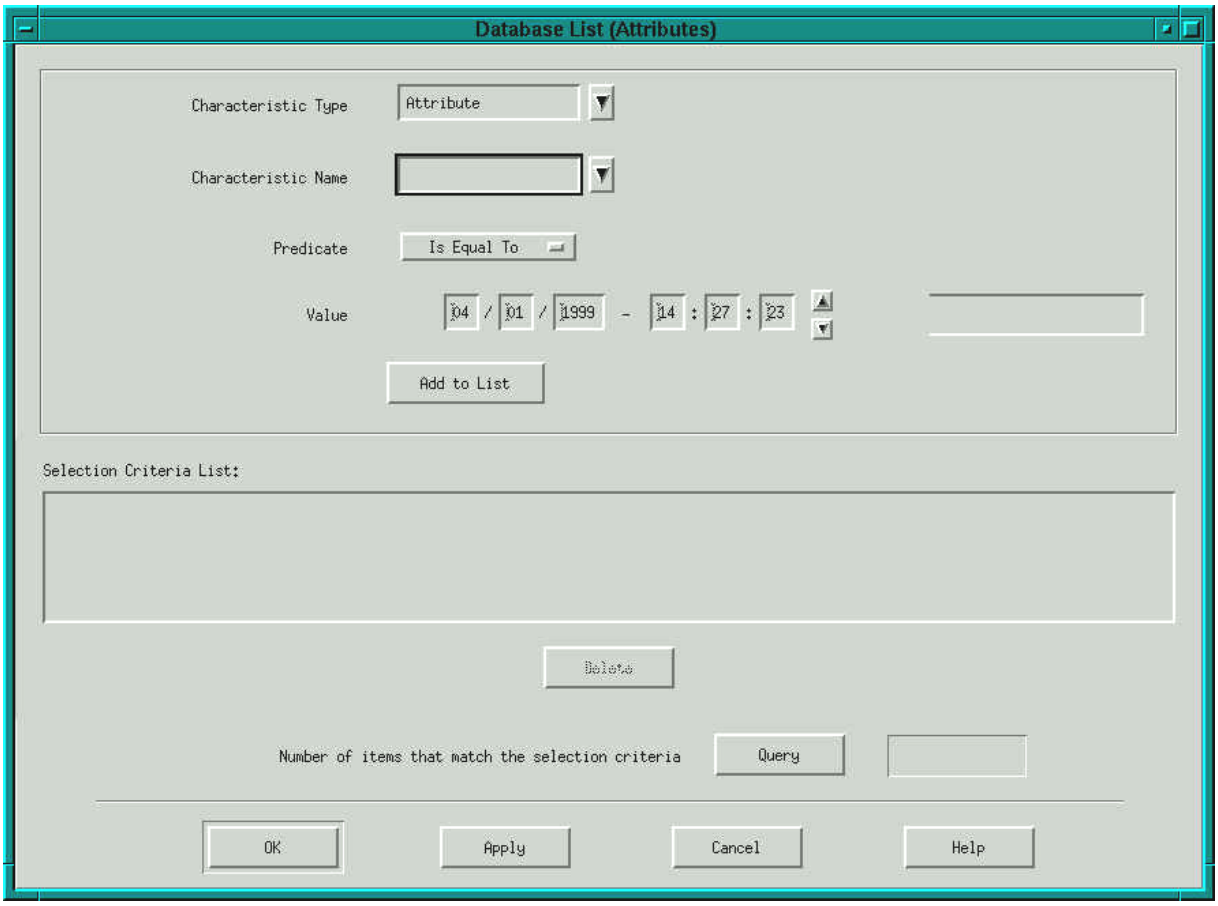

Figure 4.11.3-2. Database List (Attributes) Screen

4.11.3.2.1.1 Editing ECS Core Attributes

On entering/setting the values for the fields appropriately, based on what attribute the operator would like to edit, and clicking the OK button at the bottom, a list of attributes is displayed on the Main Screen (Figure 4.11.3-3). The operator after selecting an attribute can click an edit or delete button. The Attribute Editor screen (Figure 4.11.3-4), which is displayed when the operator clicks on the edit button, allows the operator to edit the values of the attribute. To delete an attribute the operator has to click on the delete button. The edited or the deleted attributes are not written to the database until the update button is clicked. The operator can either undo a single action by clicking on the undo button, or can undo all the action by clicking on the cancel button. The attribute(s) edited can be committed to the database by clicking the update button.

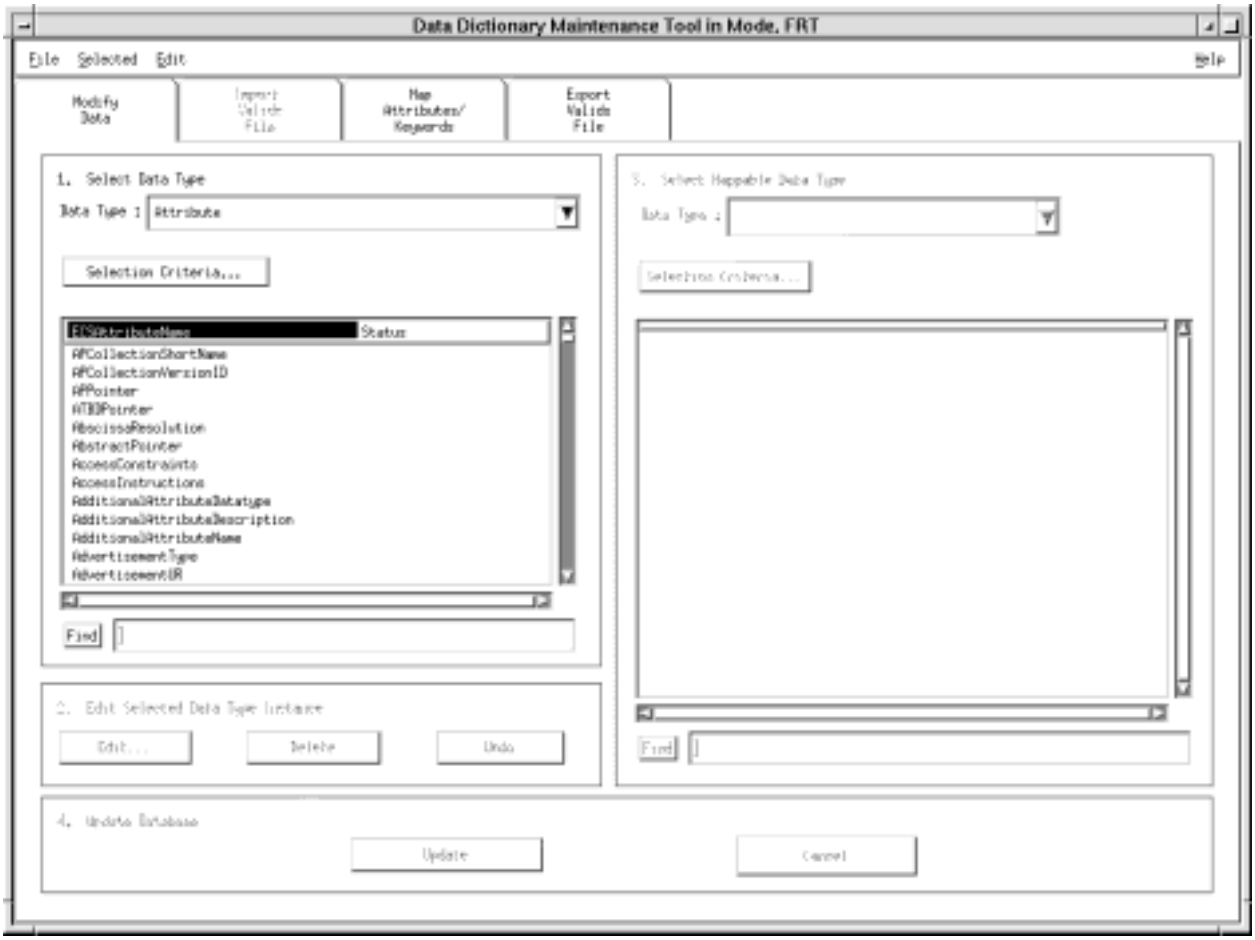

Figure 4.11.3-3. Modify Data Tab with Attribute List

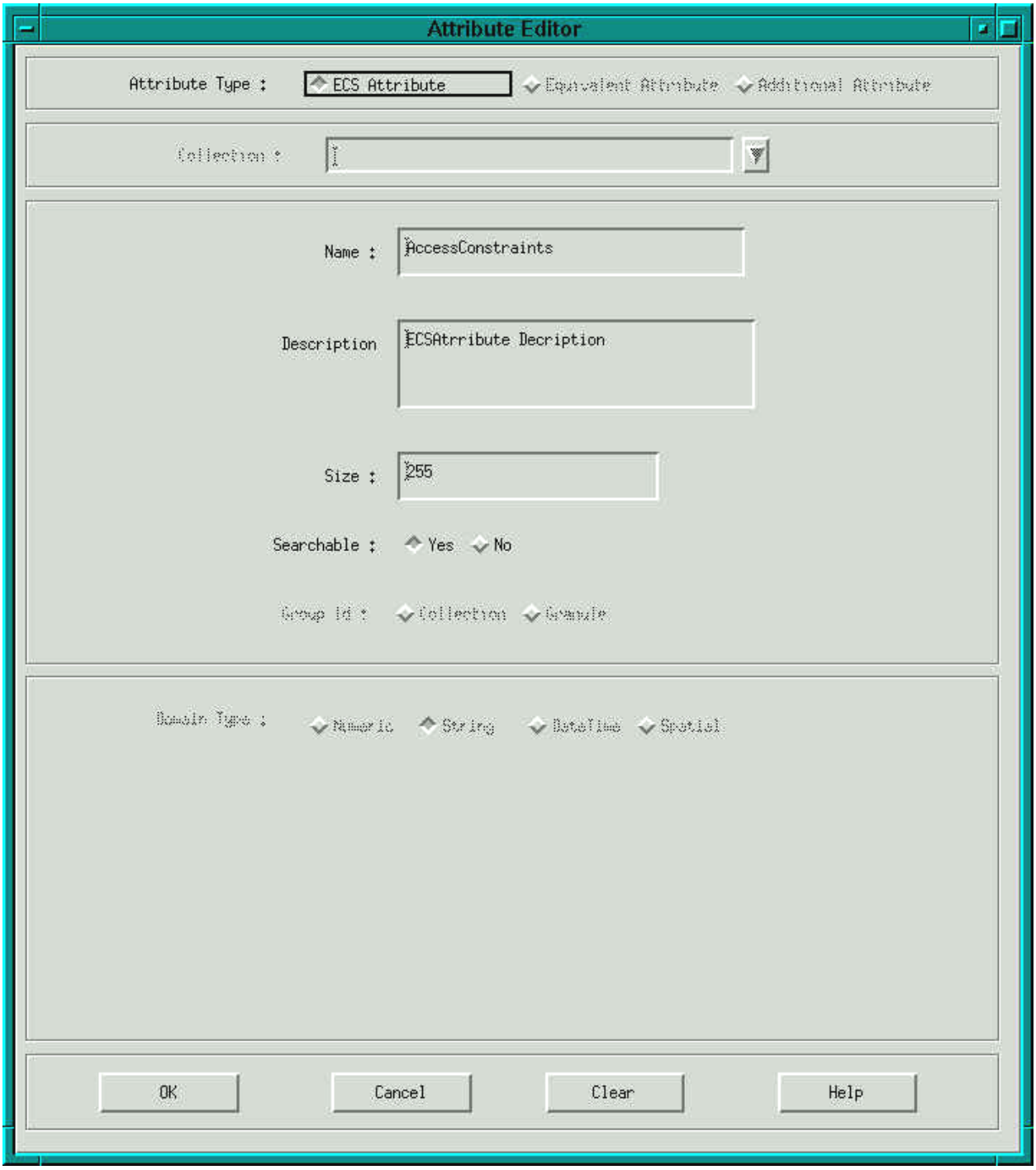

Figure 4.11.3-4. Attribute Editor Screen

4.11.3.2.2 Import Valids File Tab

Figure 4.11.3-5 shows the Import Valids File tab of the Data Dictionary Maintenance window.

Figure 4.11.3-5. Import Valids File Tab

This screen is used to check the database and ingest valids files. The information about new collections will be sent to the operator in the form of a file containing collection descriptions. This will be a "Valids" file, which contains the information about one or more collections. This GUI allows the operators to read in the files and run an error checking function. If there are no errors, the collection description will be ingested into the Data Dictionary. If any errors are found, a list of all errors will be saved to file to be sent to the source for the valids and keyword definitions files, so that corrections can be made. Figure 4.11.3-5 shows the Read Valids File tab.

Click on the Valid File Syntax **Check** button to check the file for syntactic errors.

The Ingest Errors window will display any error that occurred during error checking function. If there are any fatal errors within the file syntax, the Update button will not be sensitized. This means that the operator can not ingest the file. The operator can select the Save button to save the list of all errors to a file. If there are no errors, the Update button will be sensitized and the Valids File can be ingested into the database by clicking on that button.

The Import Valids File tab provides the following dropdown menu options:

- **File -** provides a short cut for the expert users. This menu contains the following items:

  New -Desensitized.

  – **Open** - Opens the specified file only in the Read Valids File.

  Save and Save As - Saves the Error Dialog to the specified file, without closing the file.

  – **Exit** - Exit application

- **Selected** - provides operations to be performed. This menu contains the following options:

  – **Deselect All**- Desensitized.

  – **Select All** - Desensitized.

  – **Edit** - Desensitized.

- **Edit -** allows for pasting and cutting of text. This menu contains the following options:

  – **Undo** **:** Available to undo the previous action while a secondary keyword is selected.

  – **Cut** **:** Desensitized.

  – **Copy** : Desensitized.

  – **Paste** : Desensitized..

  Clear All **: C**lears all the content of the field within the tabs.

  – **Delete** **:** Desensitized.

- **Help** - displays general and context sensitive help. This menu contains the following:

  – **On Help** - provides detailed help on using help.

  – **On context** - Displays help for the control/field selected after activating this button.

- **On window -** Displays help for the window selected after activating this button.
- **On Keys -** provides help on keyboard and mouse usage, and general help on interacting with user interface components.
- **Index** Not available for Release 5.
- **Tutorial** Not available for Release 5.
- **On Version** Not available for Release 5.

The detailed description of this tab is in the Table 4.11.3-2.

Table 4.11.3-2. The Import Valids File Field Description

Field Name	Data Type	Size	Entry	Description
Valids File	TEXT	100	Keyboard	Valids file to be ingested by tool
Ingest Error	TEXT	N/A	NOT INPUT	Instance of syntax error.
Available Service	TEXT	N/A	NOT INPUT	A list of available services for collection.
Error File	TEXT	100	Keyboard	Output file for errors in input file syntax

The operator can specify in the Valid File window, the ASCII valid file that needs to be inserted in the Data Dictionary Database. Or by clicking the Browse button which brings up the File Select Pop-up shown in Figure 4.11.3-6. The detailed field description of this screen is in Table 4.11.3-3.

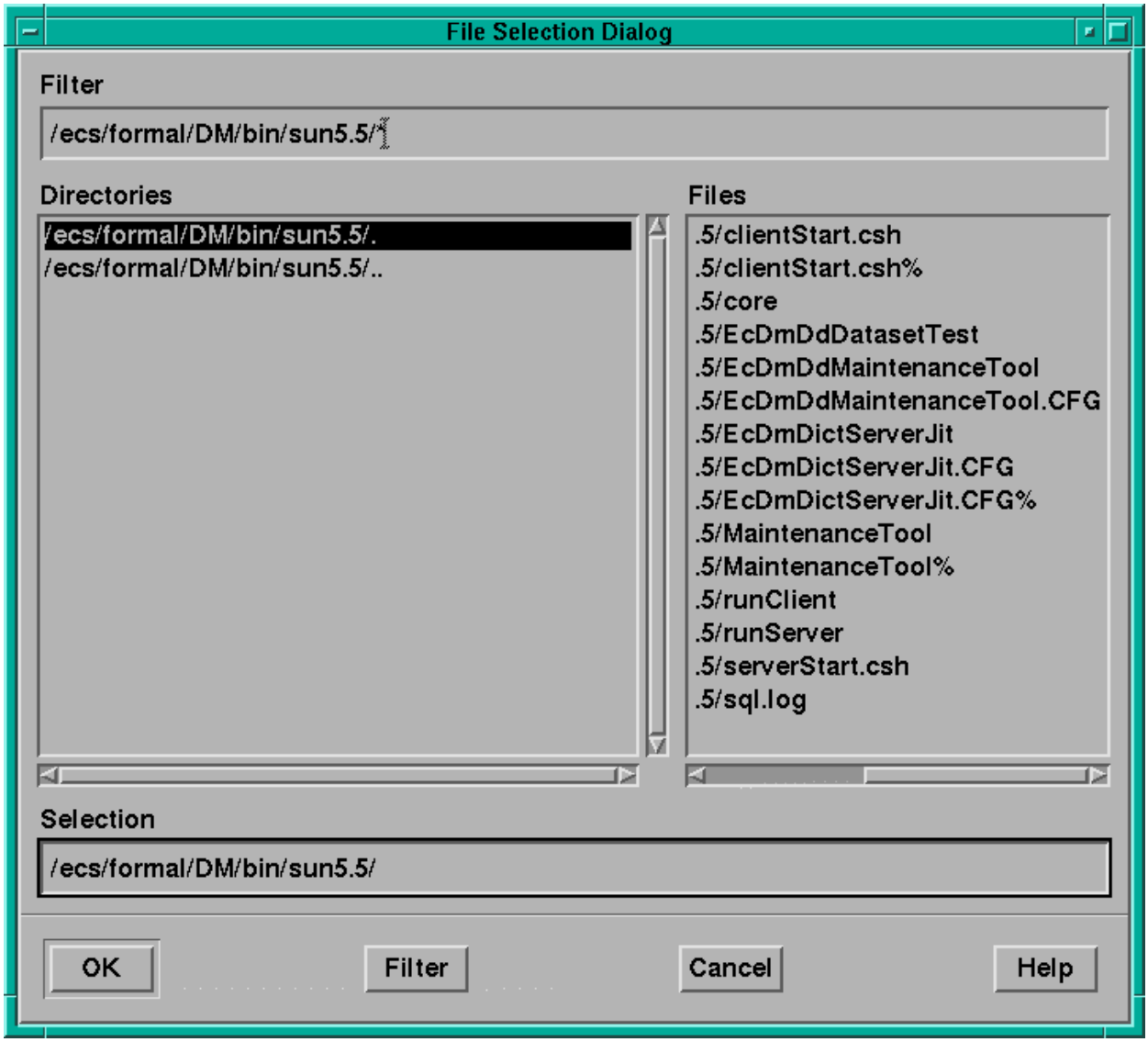

Figure 4.11.3-6. File Select Pop-up

The operator can use the Filter window to limit the selected files to be displayed. Select the desired directory and the corresponding file form the Directories and Files window. The selected file will be displayed on the Selection window. By clicking OK button the File Selection Dialog will pop down and selected file will be displayed in the Valids File window.

Table 4.11.3-3. The File Selection Field Descriptions

Field Name	Data Type	Size	Entry	Description
Filter	TEXT	100	Keyboard	wildcard search criteria
Directories	LIST	N/A	Click	select directory to browse
Files	LIST	N/A	Click	select file to read
Selection	TEXT	100	Keyboard	select file to read

4.11.3.2.3 Map Attributes/Keywords Tab

The Data Dictionary database contains descriptions of collections from ECS and sources outside ECS. All ECS collections use a standard set of terms to describe their data, but non-ECS collections may contain non-ECS terminology. The Map Attributes/Keywords tab allows the operator to set up an association between ECS and non-ECS attributes and keywords. An operator can choose non-ECS terms from a list and map that to the correct corresponding ECS term. Figure 4.11.3-7 shows the Map Attribute GUI.

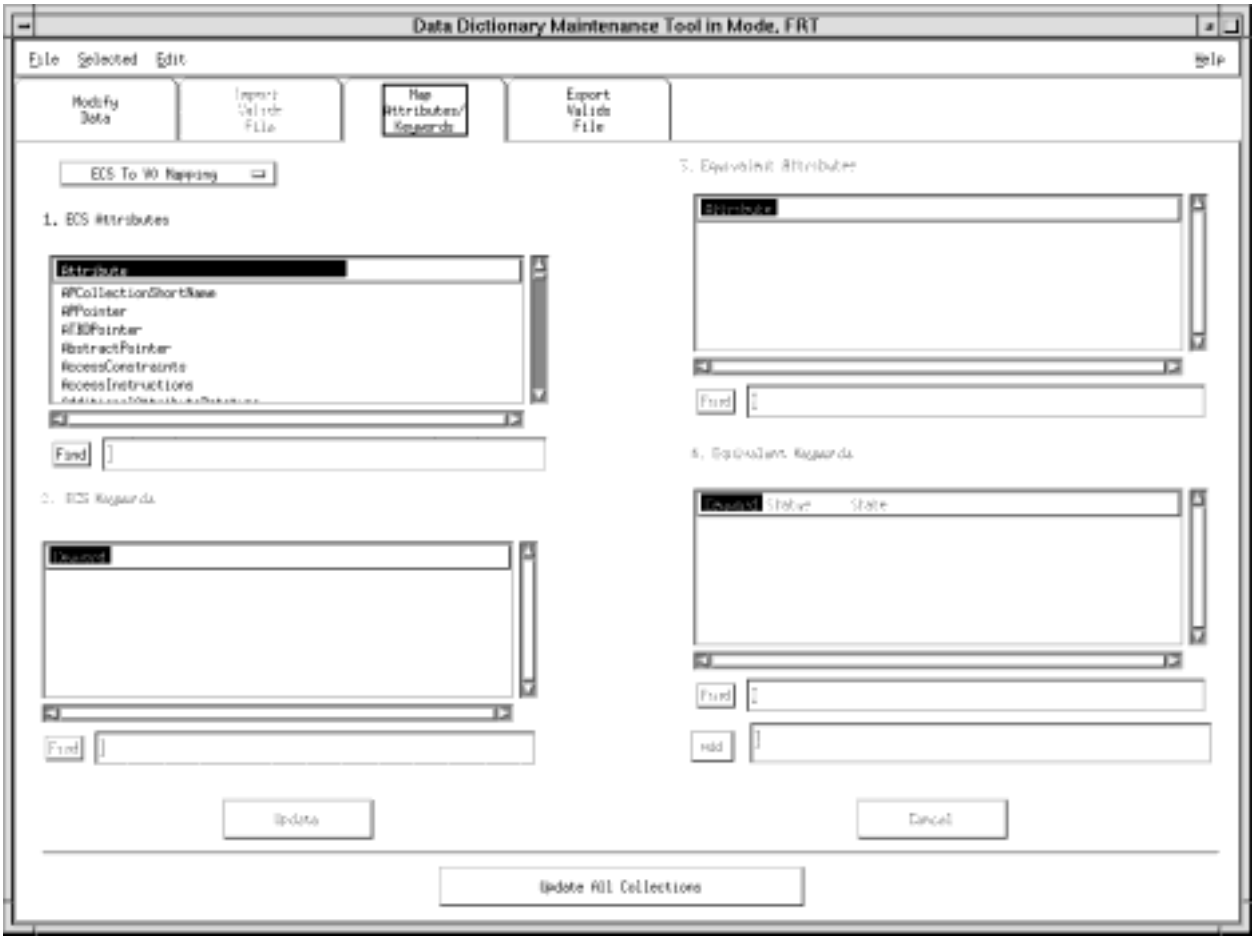

Figure 4.11.3.7. Map Attributes/Keywords Tab

Once the operator is satisfied with the mappings they have set up they may commit these mappings to the database using the update button. To relate these mappings to collections the operator should click on the update all collections button.

The Map Attributes/Keywords tab provides the following dropdown menu options:

- **File -** provides a short cut for the expert users. This menu contains the following items:

  New -Desensitized.

  – **Open** - Desensitized.

  Save and Save AS. - Desensitized.

  – **Exit** - Exit application

- **Selected** - provides operations to be performed. This menu contains the following options:

  – **Deselect All** - Deselects all Attributes and Keywords displayed on the tab.

  – **Select All** - Selects all Attributes and Keywords displayed on the Tab.

  – **Edit** - Desensitized.

- **Edit -** allows for pasting and cutting of text. This menu contains the following options:

  – **Undo** **:** Desensitized.

  – **Cut** **:** Desensitized.

  – **Copy** : Desensitized.

  – **Paste** : Desensitized..

  Clear All **:** Clears all the content of the field within the tabs.

  – **Delete** **:** Desensitized.

- **Help** - displays general and context sensitive help. This menu contains the following:

  – **On Help** - provides detailed help on using help.

  – **On context** - Displays help for the control/field selected after activating this button.

  – **On window** - Displays help for the window selected after activating this button.

  – **On Keys** - provides help on keyboard and mouse usage, and general help on interacting with user interface components.

- **Index** Not available for Release 5.
- **Tutorial** Not available for Release 5.
- **On Version** Not available for Release 5.

Table 4.11.3-4 describes the fields on the Map Attributes/Keywords tab.

Table 4.11.3-4. The Map Attributes/Keywords Field Description

Field Name	Data Type	Size	Entry	Description
Attributes	TEXT	N/A	Click	An ECS of non-ECS attribute
Keyword	TEXT	N/A	Click	An ECS of non-ECS keyword

4.11.3.2.4 Export Valids File Tab

The Export Valids File tab shown in Figure 4.11.3-8 allows operators to send descriptions of data collections that exist in the database to outside of the ECS system. Valids files are used for this purpose. This tab allows the operators to select the desired collection and specify the name/locations for the file to be written.

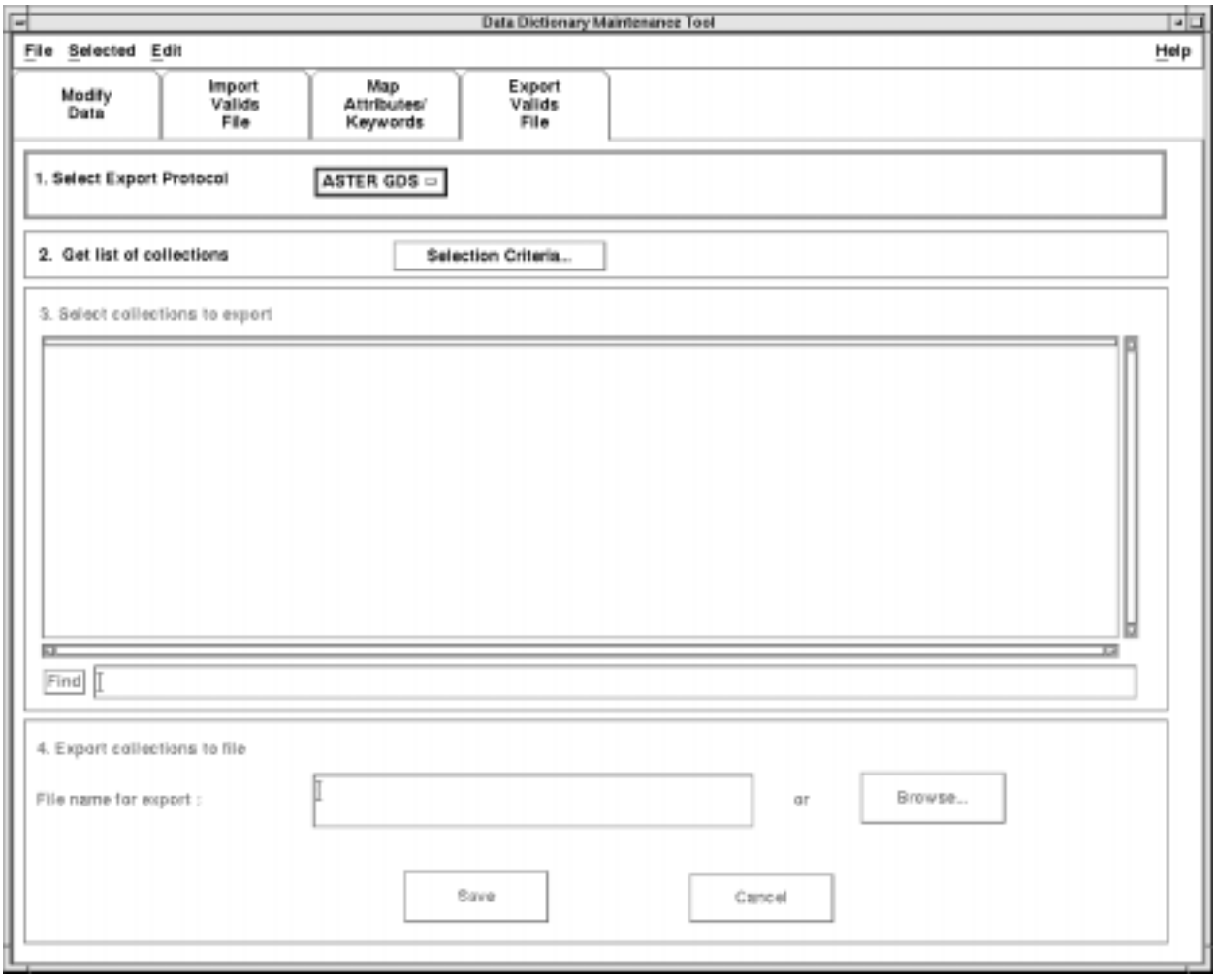

Figure 4.11.3-8. Export Valids File Tab

Clicking on the Selection Criteria button brings up the Database list dialog. By clicking on the OK button a list of collections will be displayed on the Collections List. By double clicking on the collection(s) that the operator wishes to export, export status is attached to the collection(s). Then the operator can specify where to write the valid file to, in the Valid File text box, or by clicking the Browse button the operator can choose the location/path. By clicking on the Save button the valids are written to the specified file.

The Export Valids File tab provides the following dropdown menu options:

- **File** - provides a short cut for the expert user. This menu contains the following items:

  New - Desensitized.

  – **Open** - Desensitized.

Save and **Save AS..** - Saves the Error Dialog to the specified file, without closing the file..

– **Exit** - Exit application

- **Selected**- provides operations to be performed. This menu contains the following options:

  – **Deselect All** - Desensitized.

  – **Select All** - Desensitized.

  – **Edit** - Desensitized.

- **Edit** - allows for pasting and cutting of text. This menu contains the following options:

  – **Undo** : Available to undo the previous action while a secondary keyword is selected.

  – **Cut** : Desensitized.

  – **Copy** : Desensitized.

  – **Paste** : Desensitized..

  Clear All : Clears all the content of the field within the Tabs.

  – **Delete** : Desensitized.

- **Help** - displays general and context sensitive help. This menu contains the following:

  On Help - provides detailed help on using help.

  On context - Displays help for the control/field selected after activating this button.

  On window - Displays help for the window selected after activating this button.

  – **On Keys** - provides help on keyboard and mouse usage, and general help on interacting with user interface components.

  Index Not available for Release 5.

  Tutorial Not available for Release 5.

  On Version Not available for Release 5.

Table 4.11.3-5 describes the fields on the Export Valids File screen.

Table 4.11.3-5. The Export Valids File Field Descriptions

Field Name	Data Type	Size	Entry	Description
Collections	LIST	N/A	Click	List of possible collections
Collection to Write	LIST	N/A	Click	List of collections to export
Valids File	TEXT	100	Keyboard	File name for generated valids file

4.11.3.2.5 Release Collection Tab *(not part of release)*

The Release Collection function is not be available in the ECS Release 5.

4.11.3.2.6 Create Multiple Collection Tab *(not part of drop 5 release)*

The Create Multiple Collection function is not available in the ECS Release 5.

4.11.3.3 Required Operating Environment

DDMT runs on the dms1 host

For information on the operating environment, tunable parameters and environment variables of DDMT refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.11.3.3.1 Interfaces and Data Types

DDMT exchanges data of various types through interfaces with Data Dictionary Server which runs in the background.

4.11.3.4 Database Schema

The DDMT process uses the Data Management database. Documentation for this database for Release 4 is ECS document 311-CD-102-005, *Data Management Database Design and Schema Specifications (Draft).* The operator may have to identify individual data fields by examination of the descriptions in the documentation. Some data may be directly accessible through the database software.

4.11.3.5 Special Constraints

Data Dictionary Server must be running

4.11.3.6 Outputs

Output from the DDMT consists of the data displayed on the screens described in Section 4.11.3.2, database updates or additions to the database referenced in Section 4.11.3.4, and error and event messages described in Section 4.11.3.7

4.11.3.7 Event and Error Messages

DDMT uses the ECS Process Framework error logging.

4.11.3.8 Reports

None.

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4.11.4 Subscription Editor

The Subscription Editor allows an operator to manually enter subscriptions to the Infrastructure Development Group (IDG) Subscription Server. The ability to submit subscriptions automatically has been integrated into the Production Request Editor. This tool allows the operations staff flexibility in submitting subscriptions. The Subscription Editor also has the ability to register subscriptions on behalf of the SCF user as well as the PDPS production system (subscription manager). But this functionality will also be available in the more user-friendly IDG Subscription tool (see Section 4.12.9 "Subscription Server"). Submitting/withdrawing subscriptions is functionally separated from the receipt of subscription notifications; the reception of the notification is the responsibility of the Subscription Manager.

The subscriptions that are built are slightly different for the two classes of users. Those for the Subscription Manager send notifications via the IDG asynchronous message passing mechanisms using a logical queue name defined in the configuration file for this tool. The logical queue name is a DCE CDS directory entry which is the destination for the IDG asynchronous notification, and to which the Subscription Manager registers interest in arriving messages.

The subscriptions built for the other class of users send notifications by e-mail. When building a subscription for an end user, information is entered about the client who will receive the notification is entered by the operator. The ECS user-id has to be supplied for the SCF user; this is used within the IDG subscription server to determine an e-mail account to which notification is sent.

A subscription is built from an advertisement of the subscription. The advertising subsystem maintains a list of all the "events" which may be subscribed to within the ECS system. The PDPS production system is basically interested in INSERT events for ESDTs (to be made aware when new data arrive into the ECS). The events are created/defined during the process of adding an ESDT to the Science Data Server; the events are actually advertised by the IDG subscription server(s). SCF users may browse the list of subscribable events from the Earth Science Online Directory. The Subscription Editor software accesses the advertisements for subscribable events by searching on their "internal service name" within the advertising database.

PDPS Subscription Editor is used to perform the operator functions listed in Table 4.11.4-1.

Table 4.11.4-1. Common ECS Operator Functions Performed with PDPS Subscription Editor

Operating Function	Command	Description	When and Why to Use
Start *PDPS Subscription Editor* program	**EcPlSubsEditStart**	This will bring up the *PDPS Subscription Editor*	To manually enter or cancel subscriptions.
manually enter subscriptions to the IDG Subscription Server	**EcPlSubsEditStart**	The program will query the operator for the input parameters necessary to submit the subscription	When the Subscription Manager or SCF user requires a subscription to be manually entered.
manually cancel subscriptions to the IDG Subscription Server	**EcPlSubsEditStart**	The program will query the operator for the input parameters necessary to cancel the subscription	When the Subscription Manager or SCF user requires a subscription to be manually canceled.

4.11.4.1 Quick Start Using Subscription Editor

To execute PDPS Subscription Editor from the command line prompt use:

> **EcPlSubsEditStart <mode> [<APP_ID>]**

The **mode** parameter specifies the mode in which the program is to run. The Subscription Editor can run in any mode, e.g., OPS, TS1,etc. Modes are established by the DAAC Operations staff.

The optional **APP_ID** parameter establishes a unique identifier for the running program. It is an integer. If the value of a running program is selected the script will terminate with a message indicating another APP_ID must be chosen.

Refer to the 920-TDx-013 “Custom Code Configuration Parameters” documentation series, for a listing of **EcPlSubsEditStart.**

4.11.4.2 Subscription Editor Main Screen

There is no GUI or CHUI for the PDPS Subscription Editor. The DAAC operations user interacts with the Subscription Editor by responding to the following prompts put out by the program.

Would you like to view the complete list of ESDTs known to PDPS? (y/n):
Is recipient PLS Subscription Manager (Y/N):
if recipient is PLS Subscription Manager - Y:
Enter ESDT data type name (as appears in the PDPS database):
Override the provider [provider name] defined for this ESDT (Y/N):
Submit (S)/Withdraw(W):
if recipient is not PLS Subscription Manager - N:
Enter user id:
Enter email address (for subscription notification):
Enter ESDT data type name (as appears in the PDPS database):
Override the provider [provider name] defined for this ESDT (Y/N):
Submit (S)/Withdraw(W):
Specify the Internal Service Name

Enter 'd' for default Insert Event service.

4.11.4.3 Required Operating Environment

The PDPS Subscription Editor is run on the SUN.

For information on the operating environment, tunable parameters and environment variables of PDPS Subscription Editor refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series . The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

Table 4.11.4-2 identifies the supporting products this tool depends upon in order to function properly.

Table 4.11.4-2. Support products for PDPS Subscription Editor

Interface (facility)
IDG Subscription Server
IOS Advertising Server

4.11.4.3.1 Interfaces and Data Types

Table 4.11.4-3 identifies Subscription Editor interfaces.

Table 4.11.4-3. PDPS Subscription Editor Interfaces

Interface (facility)	Type Interface Protocols	Description	Comments
MSS	Process Framework	Used for error logging	Via ECPfClient
IOS	OODCE/Client	Obtain advertisements describing the events for subscriptions	Advertising database. Events are managed by DSS.
IDG	OODCE/Client	Cancel or submit subscriptions	Subscription Server
PDPS	Sybase Client	Access the PDPS database	

4.11.4.4 Databases

The PDPS Subscription Editor uses the PDPS database, the IDG Subscription Server database, and the IOS Advertising database. The PDPS database for Release 4 is ECS document 311-CD-106-005, *Planning and Data Processing Subsystem Database Design and Schema Specifications*. The IDG Subscription Server database is 311-CD-109-005, *Subscription Server Database Design and Schema Specifications*. The IOS Advertising database is 311-CD-104-005, *Interoperability Subsystem (IOS) Database Design and Schema Specifications.*

4.11.4.5 Special Constraints

ESDTs must have been registered with PDPS through the SSIT process. The ESDTs and their associated events must be installed into the SDSRV, the IDG's Subscription Server, and the IOS's Advertising Server.

4.11.4.6 Outputs

The PDPS Subscription Editor output consists of data returned to the command line interface, error messages as described in Section 4.11.4.7, and updates to the PDPS and IDG subscription server database.

4.11.4.7 Event and Error Messages

The PDPS Subscription Editor program issues error messages which are listed in Appendix A.

4.11.4.8 Reports

None.

4.11.5 Database Installation and Maintenance Scripts

A set of eleven standard database scripts have been created for the DDIST, IOS, INGEST, MSS, PDPS, SDSRV, STMGT, and SUBSRV subsystems to facilitate database installation and database administration activities. These scripts are designed to be accessible from both the command line and the Stage Install function of ECS Assist. The scripts follow a standard naming convention across each subsystem consisting of a prefix, of the format ***EcXXXX***, identifying the subsystem component and a root identifying the primary database command or purpose performed by the script. For example a script to define login IDs used by the IOS advertising server would be called EcIoAdDbLogin.

A description of each of the suggested standard scripts is given Table 4.11.5-1. Details on the applicable scripts for each subsystem may be found in the corresponding subsystem-specific 311 documentation.

Table 4.11.5-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts (1 of 2)

Operating Function	Command	Description	When and Why to Use
Add Login	DbLogin	Add existing system login to the SQL server.	Use when installing an ECS custom application to add the pre-defined set of Unix logins used by the application to the appropriate SQL server.
Add User	DbUser	Add user ID to a database	Use when installing an ECS custom application to add the pre-defined set of User IDs used by the application to the appropriate database.
Create Database	DbBuild	Build a new empty database and load with initial start-up data.	Use when installing an upgraded Release/drop or an ECS custom application into a mode where there is no existing data that needs to be retained.
Upgrade Database	DbPatch	Upgrade tables to new schema while retaining existing data.	Use when installing an upgraded Release/Drop of an ECS custom application into a mode containing existing data that needs to be retained.
Drop objects	DbDrop	Remove all database objects (tables, triggers, stored procedures, domains, rules, user-defined data types) from a database.	Should not be used independently by the Operator. Used by DbBuild script during installation to remove obsolete objects from the database.

Table 4.11.5-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts (2 of 2)

Operating Function	Command	Description	When and Why to Use
Backup database	DbDump	Create a backup file for the database.	Use to create a backup of the database that can be used in the event of database corruption or disk failure.
Restore database	DbLoad	Restore a database from a backup file.	Use to recover from database corruption or disk failure.
Update database statistics	DbStat	Updates the database statistics used by the Sybase query optimizer.	Use on a regular frequency to update database statistics to optimize query response times.
Remove ESDT	DbClean	Removes all data for a single ESDT from the database.	Use to de-install an ESDT from a subsystem database.
Purge data	DbPurge	Removes and/or archived expired data.	Use on a periodic basis to delete expired
Check install	EcDsDesc	Verifies database install	Use after running DbBuild or DbPatch to confirm that subsystem database was properly installed.

4.11.5.1 Quick Start Using Database Installation and Maintenance Scripts

The database installation and maintenance scripts are a custom developed utility and should be used only by database administration personnel.

To execute Database Installation and Maintenance Scripts from the command line prompt use:

Scriptname <***mode***> <***dbo_id***> <***passwd***> <***sqlserver***> <***dbname***> where:

Scriptname.specifies the name of the database script to be executed.

The <***mode***> parameter specifies the mode (e.g., OPS, TS1, etc) in which the database to be used is found.

The <***dbo_id***> parameter specifies the user ID of the database owner for the database to be used.

The <***passwd***> parameter specifies the password of the database owner for the database to be used..

The <***sqlserver***> parameter specifies the name of the SQL server under which the database to be used is found.

The <***dbname***> parameter specifies the name of the database to be used.

4.11.5.1.1 Invoking Database Installation and Maintenance Scripts using ECS Assist.

All scripts except EcDbDesc can be invoked using the ECS Assist installation tool using the DATABASE command button. Further information on using ECS Assist may be found elsewhere in this document.

4.11.5.3 Required Operating Environment

The Database Installation and Maintenance Scripts may be run on the SUN, SGI, or HP.

For information on the operating environment, tunable parameters and environment variables of Database Installation and Maintenance Scripts refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

Table 4.11.5-2 identifies the supporting products this tool depends upon in order to function properly.

Table 4.11.5-2. Support products for Database Installation and Maintenance Scripts

Interface (facility)
Sybase SQL Server

4.11.5.3.1 Interfaces and Data Types

None.

4.11.5.4 Databases

The Database Installation and Maintenance Scripts uses the DDIST, DM, INGEST, IOS, MSS, SDSRV, STMGT, or SUBSRV database as applicable. Description of each of these databases is found in the following documents:

311-CD-101-005, *Data Distribution Subsystem Database Design and Schema Specifications*

311-CD-102-005, *Data Management Subsystem Database Design and Schema Specifications*

311-CD-103-005, *Ingest Subsystem Database Design and Schema Specifications*

311-CD-104-005, *Interoperability Subsystem Database Design and Schema Specifications*

311-CD-105-005, *System Management Support Subsystem Database Design and Schema Specifications*

311-CD-106-005, *Planning and Data Processing Subsystem Database Design and Schema Specifications*

311-CD-107-005, *Science Data Server Subsystem Database Design and Schema Specifications*

311-CD-108-005, *Storage Management Subsystem Database Design and Schema Specifications*

311-CD-109-005, *Subscription Server Database Design and Schema Specifications*. The IOS Advertising database is 311-CD-104-005, *Interoperability Subsystem (IOS) Database Design and Schema Specifications.*

4.11.5.5 Special Constraints

None.

4.11.5.6 Outputs

None.

4.11.5.7 Event and Error Messages

The Database Installation and Maintenance Scripts issues error messages which are reported on the Sybase error log.

4.11.5.8 Reports

None.

4.11.6 Replication Installation and Maintenance Scripts

A set of replication scripts has been created for the MSS subsystem to facilitate installation and administration activities. These scripts are designed to be accessible from both the command line and the ECS Assist installation tools. The scripts follow a standard naming convention across each subsystem consisting of a prefix, of the format ***EcXXXX***, identifying the subsystem component and a root identifying the primary command or purpose performed by the script. For example a script to define replication login IDs used by the MSS would be called EcMsRsLogin.

A description of each of the suggested standard scripts is given Table 4.11.6-1. Details about the applicable scripts may be found in the appropriate subsystem-specific 311 documentation.

Table 4.11.6-1. Common ECS Operator Functions Performed with Database Installation and Maintenance Scripts (1 of 2)

Operating Function	Command	Description	When and Why to Use
Add Login	RsLogin	Add existing system login to the SQL server.	Use when installing an ECS custom application to add the pre-defined set of Unix logins used by the application to the appropriate SQL server.
Add User	RsUser	Add user ID to a database	Use when installing an ECS custom application to add the pre-defined set of User IDs used by the application to the appropriate database.
Install Replication Objects	RsBuild	Install a new copy of scripts and replication objects necessary for database replication.	Use when installing an upgraded Release/drop or an ECS custom application into a mode where there is no existing data that needs to be retained.
Upgrade Replication Objects	RsPatch	Installs replicate database patch wrapper, or modifications to existing replication objects.	Use when installing an upgraded Release/Drop of an ECS custom application into a mode containing existing data that needs to be retained.
Replicate MSS Databases	RsMsDb	Create a backup file for the database.	Use to create a backup of the database that can be used in the event of database corruption or disk failure.

4.11.6.1 Quick Start Using Replication Installation and Maintenance Scripts

The database replication installation and maintenance scripts are a custom developed utility and should be used only by database administration personnel.

4.11.6.2 Replication and Maintenance Script User Interface

To execute database replication installation and maintenance scripts from the command line prompt use:

>Scriptname <*mode*>

Where:
Scriptname.specifies the name of the database script to be executed.

<***mode***> specifies the mode in which the databases to be used are found, e.g. OPS, TS1.

4.11.6.2.1 Invoking Database Installation and Maintenance Scripts using ECS Assist.

(TBS)

4.11.6.3 Required Operating Environment

The Replication Installation and Maintenance Scripts may be run on the SUN.

For information on the operating environment, tunable parameters and environment variables of Database Installation and Maintenance Scripts refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series . The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

Table 4.11.6-2 identifies the supporting products this tool depends upon in order to function properly.

Table 4.11.6-2. Support products for Database Installation and Maintenance Scripts

Interface (facility)
Sybase SQL Server
rs_subcmp (Sybase Replication Server utility)

4.11.6.3.1 Interfaces and Data Types

None

4.11.6.4 Databases

The Replication Installation and Maintenance Scripts use the MSS database as applicable.
Description of this database is found in the following documents:

311-CD-105-005, *System Management Support Subsystem Database Design and Schema Specifications*

4.11.6.5 Special Constraints

None

4.11.6.6 Outputs

None

4.11.6.7 Event and Error Messages

The Replication Installation and Maintenance Scripts issues error messages which are reported to the script's error log.

4.11.6.8 Reports

None

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4.11.7 Landsat 7 Error Handling Tool

The Landsat 7 Error Handling Tool provides the ECS Operations Staff with the ability to Merge/Demerge/Promote/Delete Landsat 7 granules using a command line interface. This tool works exclusively in the Science Data Server (SDSRV) database. The tool only modifies tables in the SDSRV database.

The **Delete** command gives the user options to modify the DeleteFromArchive flag in the DsMdGranules table only or physically delete the granules from the archive and the inventory.

The **Merge** command mimics the process done by the SDSRV and Landsat 7 Dynamic Link Library (DLL) during an ingest of Landsat 7 data.

The **Demerge** operation allows the operations staff to separate incomplete combined granules and thus allows the recombination, Merging, of complete data sets.

The **Promote** tool is used to associate granules with only a single format of data, bands 1-6 format 1/bands 6-8 format 2, with the appropriately combined subinterval and thus making the granule available for ordering. Before this tool, the data was unavailable.

4.11.7.1 Quick Start Using the Landsat 7 Error Handling Tool

Entering the following command starts the Landsat 7 Error Handling Tool:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

There are three command line parameters and they are used in combination with each other. Table 4.11.7-1 describes these parameters.

Table 4.11.7-1. Command Line Parameters of the Landsat 7 Error Handling Tool

Parameter Name	Description
mode	Mode corresponding with the database to be modified
Start Time	Start time, insertTime, of the temporal range of granules to search. This will be used to search for unmerged subintervals/scenes when the Landsat 7 Error Handling Tool is started.
Stop Time	Stop time, insertTime, of the temporal range of granules to search. This will be used to search for unmerged subintervals/scenes when the Landsat 7 Error Handling Tool is started.

All of the parameters are mandatory. Before starting the tool the file "EcDsSrDbL7ErrorHandlingRC" should be modified to reflect the user's local environment.

This file is used by EcDsSrDbL7ErrorHandling to setup environment # variables, which makes EcDsSrDbL7ErrorHandling more tunable. # MUST be updated to customize at sites.#

```
export SYBASE=/tools/sybOCv11.1.1  # Directory where Sybase
stuff resides
```

```
export SERVER=x0acgxx_srvr                # SQL server where ECS
Science Data Server
                                          # Database can be
accessed
export ECS_HOME=/usr/ecs/
export SQSSERVER=x0acgxx_sqs322_srvr      # SQS server
export DBUSERNAME=EcDsScienceDataServer   # Valid user name to login into
                                          # database
export DBPASSWD=xxxxxxx                   # Password to access
database

export DBNAME=EcDsScienceDataServerX      # Name of database

export WORKDIR=/usr/ecs/${MODE}/CUSTOM/data/DSS     # Directory
where the
                                                    # script
resides

export reportdir=/usr/ecs/${MODE}/CUSTOM/data/DSS   # Directory for report files
export tempdir=/usr/ecs/${MODE}/CUSTOM/data/DSS     # Directory
for
                                                    # temporary
files
export errorfile=/usr/ecs/${MODE}/CUSTOM/data/DSS/EcDsSrDbL7ErrorHandling.errlog
                                          # File to use for holding any possible error
                                          messages
```

4.11.7.2 Landsat 7 Error Handling Tool Commands

The Landsat 7 Error Handling Tool provides the following granule modification options:

1. **Initiate Merge of Landsat 7 Subintervals/Scenes from the SDSRV database**. The selected Subintervals/Scenes must be passed to the tool via a file, which gets created during the start of the Landsat 7 Error Handling tool. The format of the input file is very specific, it is listed below.

   Subinterval sample file input:

```
dbID    ShortName Insert Time         Path    Starting Row Ending Row       Assoc. File Name
10248   L70RF1    May 27 1998 9:26AM 172      44           50               SC:L70RF1.001:10248
10247   L70RF2    May 27 1998 9:26AM 172      44           50               SC:L70RF2.001:10247
10669   L70RF1    May 27 1999 9:25AM 172      44           50               SC:L70RF1.002:10669
10661   L70RF2    May 27 1999 9:25AM 172      44           50               SC:L70RF2.002:10661
```

Scene sample file input:

```
dbID    ShortName       Insert Time             Path    Row     Associated File Name
13530   L70RWRS1        May 27 1998 9:25AM      172     44      SC:L70RWRS1.001:13530
13531   L70RWRS2        May 27 1998 9:25AM      172     44      SC:L70RWRS2.001:13531
13532   L70RWRS1        May 27 1998 9:26AM      172     45      SC:L70RWRS1.001:13532
13533   L70RWRS2        May 27 1998 9:26AM      172     45      SC:L70RWRS2.001:13533
```

2. **Promote Landsat 7 Subinterval/Scene from the SDSRV database.** The selected Subintervals/Scenes must be passed to the tool via a file, which gets created when the operators starts the Landsat 7 Error Handling tool.

3. **Demerge Landsat 7 Subinterval/Scene from the SDSRV database.** The selected Subinterval/Scene must be passed to the tool by entering the geoid of the granule when prompted.

4. **Delete Landsat 7 Subinterval/Scene from the SDSRV database**. The selected Subintervals/Scenes must be passed to the tool by entering the geoid of the granule when prompted.

5. **Generate list of Orphaned Landsat 7 Subintervals/Scenes in the SDSRV Database.** The list of orphaned Subintervals/Scenes will be generated based on the start time and stop time parameters passed in as parameter #2 and #3 at invocation of the tool.

4.11.7.2.1 Initiate Merge of Landsat 7 Subintervals/Scenes from the SDSRV Database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

This command invokes the tool. The script will display a menu of commands. To initiate a merge, the user should select option 3, “Merge Subintervals/Scenes”. The user will be prompted for a filename. The user should enter the name of the file that contains the format as described in section 4.11.7.2. The script will then return a failed or successful status and then return to the menu.

4.11.7.2.2 Promote Landsat 7 Subinterval/Scene from the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

This command allows the user to make data available that cannot be used. This command is used to make data with only one format appears as though both formats existed. The user enters the command and the script will display a list of options. The user should select option 5,”Promote Orphaned granules”. The user will be prompted for a filename that contains the format as described in section 4.11.7.2. After entering the filename, the script will return a failed or successful status and then return to the menu.

4.11.7.2.3 Demerge Landsat 7 Subinterval/Scene from the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

This command is used for incorrectly combined data sets. The user should select option 4, "Demerge L70RF1/F2 granules", from the menu. The script will prompt the user for the geoid of the granule to demerge. An example of a geoid is SC:L70R.001:12345. The first part is the type of the granule. SC represents science granules. The second part is the subtype and version of the granule. The last part is the dbId of the granule. This uniquely identifies the granule in the Science Data Server's database.

4.11.7.2.4 Delete Landsat 7 Subinterval/Scene from the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

After entering the above command, the user will see a list of options. The user will should select option 6,"Delete Unmerged granules". The script prompts the user for the geoid of the granule to delete. The user will be prompted for confirmation of the deletion. The user also will be prompted to determine if the granule should be deleted from the archive and the inventory.

4.11.7.2.5 Generate list of Orphaned Landsat 7 Subintervals/Scenes in the SDSRV database

This command has the form:

EcDsSrDbL7ErrorHandling <mode> <Start Time> <Stop Time>

The first time the script is invoked it always searches the SDSRV database for orphaned granules within the time range given by the start time and stop time input parameters. After that, the user can generate the list by selecting command #2, "Update files on /tmp directory". This will create two files in the /usr/ecs/<MODE>/CUSTOM/data/DSS directory. One of the files contains all the unmerged subintervals, the file name is unmergedsubintervals. The other file contains all the unmerged scenes, the file name is unmergedscenes. The user may use these files for the merged Landsat 7 granules and promoted Landsat 7 granule options.

4.11.7.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.11.7.3.1 Interfaces and Data Types

Table 4.11.7-2 lists the supporting products that this tool depends upon in order to function properly.

Table 4.11.7-2. Interface Protocols

Product Dependency	Protocols Used	Comments
SDSRV Database	SQL	via SQL server machine

4.11.7.4 Databases

The Landsat 7 Error Handling tool does not include the direct managing of any database. It has an interface with the Science Data Server Database: however this interface is based on a simple parameter passing function. For further information of the Science Data Server Database refer to 311-CD-107-005, *Science Data Server Database Design and Schema Specifications for the ECS Project.*

4.11.7.5 Special Constraints

The Landsat 7 Error Handling Tool doesn't require any servers to be running. It is strongly recommended that as little as possible should be going on in the SDSRV database while the tool is being used.

4.11.7.6 Outputs

None.

4.11.7.7 Event and Error Messages

None

4.11.7.8 Reports

None

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4.11.8 Restricting Access to ESDTs and Granules Scripts

The two scripts *EcDsSrUpdateESDTAccess* and *EcDsSrUpdateQATimeRange* provide DAAC operations staff the ability to adjust how ScienceDataServer restricts *Acquire* access to granules. When evaluating a user's permission to *Acquire* a granule, ScienceDataServer uses the value of the NASA user attribute stored in the User Profile system. The first script, *EcDsSrUpdateESDTAccess*, allows the DAAC operator to restrict an entire ESDT/Data Collection to one or more of the specific NASA user types stored in the User Profile system. The second script, *EcDsSrUpdateQATimeRange*, allows individual granules to be restricted based upon the granule's QA flag values and the type of NASA user making the request. These scripts are delivered as part of the ScienceDataServer package and are installed in the ***/usr/ecs/<mode>/CUSTOM/dbms/DSS*** directory

4.11.8.1 Quick Start Using Restricted Granule Access

Both of the scripts, *EcDsSrUpdateESDTAccess* and *EcDsSrUpdateQATimeRange*, require the environment variables described in Table 4.11.8-1 to be set up.

Table 4.11.8-1. Environment Variables for Restricted Granule Access Commands

Variable	Description
DSQUERY	Contains the name of the Sybase SQL server where the ScienceDataServerdatabase is stored.
DBUSERNAME	Contains the Sybase login name for the owner of the ScienceDataServer database.
DBPASSWD	Contains the password for the Sybase login.
DBNAME	Contains the name of the ScienceDataServer database within the SQL server.

These can be set temporarily at the command prompt or they can be added to the operators .cshrc file. For example, to set the DBNAME environment variable using the csh, at the prompt, the operator would type:

> **setenv DBNAME EcDsScienceDataServer1** (and press <***Enter***>.

4.11.8.2 Quick Start Using Restricted Granule Access Commands

After initializing the required environment variables, the following command scripts can be invoked.

4.11.8.2.1 EcDsSrUpdateESDTAccess Command Script

The script "*EcDsSrUpdateESDTAccess*" should be invoked as:

>**EcDsSrUpdateESDTAccess** <**ShortName**> <**VersionID**>

Where **ShortName** is a string of up to eight characters and **VersionID** is a positive numeric value between 1 and 255. Together **ShortName** and **VersionID** identify the ESDT to be modified.

This script will prompt the operator for the combination of NASA user types who should be allowed access to the ESDT.

The valid NASA user types are:

P – privileged NASA user
R – regular NASA user
N – non-NASA user.

The Operator should type in a combination of one or more of the letters "**PRN**" and press Enter. For example, typing in the letter "**P**" restricts the ESDT to privileged NASA users only. Entering the letters "**PR**" restricts the ESDT to privileged and regular NASA users only. *Acquire* requests from NASA users that are not listed in the ESDT's access list (set by this script) will be rejected. When an *Acquire* request is rejected, an access violation entry is written to the ScienceDataServer log file indicating the user and the UR of the granule.

These restrictions are independent of the values of the QA flags. By default, each ESDT allows *Acquire* access to all NASA user types. This script should be executed if the DAAC operations staff wishes to impose a restriction on the entire ESDT.

4.11.8.2.2 EcDsSrUpdateQATimeRange Command Script

The script "*EcDsSrUpdateQATimeRange*" should be invoked as:

>**EcDsSrUpdateQATimeRange** <**ShortName**> <**VersionID**>

This script will prompt the operator for the number of days to be used when measuring the QA time range of a granule. An integer value greater than or equal to zero should be entered. ScienceDataServer uses this integer value when it determines the access status of a granule during an *Acquire* request. The integer number of days entered for the ESDT is added to the ProductionDateTime attribute of the granule to determine the granule's QA time period. If the current time of the *Acquire* request is before the end of the QA time period then a restrictive set of access rules is used to determine the users access to the granule. If the time of the *Acquire* request is beyond the granule's QA period, then a less restrictive set of rules is applied.

The rules work by comparing the values of the OperationalQualityFlag and the ScienceQualityFlag attributes against a list of NASA user types that have access to the flag value. For example, during the QA period, a non-NASA user can only *Acquire* a granule with QA Flag values of "null" or "Passed." However outside the QA period of the granule, the same non-NASA user can *Acquire* the granule as long as the QA flags are not "Failed" or "Under Investigation."

By default each ESDT has the QA Temporal range/period set to null which is interpreted as an infinite QA period. If this script is not used to update the ESDT, the most restrictive rules will be applied to all *Acquire* requests for the ESDT.

Setting the QA period to zero has special meaning. A period of zero causes the less restrictive rules to always be used to determine the access to a granule. The ESDT is considered to have no QA period.

4.11.8.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDx-013 "Custom Code Configuration Parameters" documentation series. The "x" refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.11.8.4 Interfaces and Data Types

These two scripts use the Sybase program "isql" to interface with the Science DataServer database. The "isql" program should be installed and operational before executing these scripts.

4.11.8.5 Databases

The Restricted Granule support scripts do not include the direct managing of any database. They have an interface with the Science Data Server Database: however this interface is based on a simple parameter passing function. For further information on the Science Data Server Database refer to 311-CD-107-005, *Science Data Server Database Design and Schema Specifications for the ECS Project*.

4.11.8.6 Special Constraints

The Restricted Granule support scripts do not require any servers to be running. The Science DataServer must be restarted for the database changes made by these scripts to become effective.

4.11.8.7 Outputs

None.

4.11.8.8 Event and Error Messages

None.

4.11.8.9 Reports

None.

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4.11.9 Science Data Server Command Line Interface (SCLI)

The SCLI tool provides the EDC Product Distribution System(PDS) with the ability to acquire Landsat and Non Landsat products via FTPPush, in fulfillment of orders placed by ECS users for those products via D3, 8mm, DLT and CD-ROM. The SCLI tool accomplishes this by providing a command line interface for the SDSRV acquire request. The acquire is submitted by either passing abbreviated an UR and/or a subsetting parameter file upon invocation of the tool.

4.11.9.1 Quick Start Using the SCLI Tool

Entering the following command starts the SCLI Tool, non Landsat product acquire:

acquire <mode> -p <parameterfile> -f <file> -t <tag>

Entering the following command starts the SCLI Tool, Landsat product acquire:

acquire <mode> -p <parameterfile> -f <file> -b <subsetparmfile> -t <tag>

There are four/five command line parameters and they are used in combination with each other. Table 4.11.9-1 describes these parameters.

Table 4.11.9-1. Command Line Parameters of the SCLI tool

Parameter Name	Description
mode	Mode corresponding with the database to be searched
parameterfile	A file that contains all of the information required to acquire and distribute the request submitted
subsetparmfile	A file that contains all of the subset information required for a Landsat granule
file	A file that can contain up to 100 granules to be acquired
tag	Unique request identification, used to track request in system. Can be up to XX characters in length.

All of the parameters are mandatory, obviously the subsetparmfile parameter is only required if acquiring a Landsat product.

4.11.9.2 SCLI Tool Commands

The SCLI Tool provides the following options:

1. **Acquire Non Landsat products**. The acquire parameters must be passed to the tool via a file. The format of the file is very specific, it is listed below.

   -p parameterfile: This file contains the request parameters for the FTP PUSH.

   FTP Push distribution: : DDISTMEDIATYPE = FtpPush;
   DDISTMEDIAFMT = FILEFORMAT.

FTP Push parameters: FTPUSER = <string>; FTPPASSWORD = <string>; FTPHOST = <string>; FTPPUSHDEST = <string>

User Profile: ECSUSERPROFILE = <$string>.

Request Priority: PRIORITY = HIGH | VHIGH | NORMAL | LOW | XPRESS.

E-Mail notification: DDISTNOTIFYTYPE = MAIL; NOTIFY=<email address>.

Request identification: USERSTRING=<PDS-originalrequestID>.

-t Tag: The user/PDS will populate the SCLI tag parameter with a unique request identification that is re-used when a request is re-submitted because of a fault.

-f file: The user/PDS will include a file list up to 100 granules to be acquired in a format conformant with Section 4.4.1 of the Interface Control Document Between EOSDIS Core System (ECS) and the Earth Resources Observation System (EROS) Data Center (EDC), 209-CD-031-00.
Example: "SC:L70RWRS.001:2000022933"

2. **Acquire Landsat products.** A request for subsetted Landsat products is defined by the presence of the subsetting parameters filename in the command line. The desired Scenes must be passed to the tool via the subsetting parameters fileThe format of the file is very specific, it is listed below

-b subsetparmfile: PDS will pass the SCLI subsetting parameters to specify the bands to be included and the polygon defining the spatial region to which the granule is to be subsetted**.** The format is modeled after the ACQUIRE parameters.

```
 {

  PolygonLatVector =
  {
        Latitude = 79.6443;
        Latitude = 78.4660;
        Latitude = 74.8875;
        Latitude = 75.7831;
  }
  PolygonLonVector =
  {
        Longitude = 159.2251;
        Longitude = 165.1426;
        Longitude = 151.5611;
        Longitude = 146.1926;
  }
  BandFilesIncluded =
```

```
 {
      Band = "QA_BAND1_PRESENT";
      Band = "QA_BAND2_PRESENT";
      Band = "QA_BAND3_PRESENT";
      Band = "QA_BAND4_PRESENT";
      Band = "QA_BAND5_PRESENT";
      Band = "QA_BAND6_PRESENT_F1";
      Band = "QA_BAND6_PRESENT_F2";
      Band = "QA_BAND7_PRESENT";
      Band = "QA_BAND8_PRESENT";
 }
}
```

4.11.9.3 Required Operating Environment

For information on the operating environment, tunable parameters, and environment variables refer to the 920-TDx-013 “Custom Code Configuration Parameters” documentation series. The “x” refers to the installed location, e.g. 920-TDG-013 is for GSFC DAAC.

4.11.8.3.1 Interfaces and Data Types

Table 4.11.7-2 lists the supporting products that this tool depends upon in order to function properly.

Table 4.11.9-2. Interface Protocols

Product Dependency	Protocols Used	Comments
Perl	Perl scripts	

4.11.9.4 Databases

None.

4.11.9.5 Special Constraints

None.

4.11.9.6 Outputs

SCLI.log file

4.11.9.7 Event and Error Messages

The SCLI issues error messages which are reported to the script's error log.

4.11.9.8 Reports

None

4.12 Common Services Tools

This section describes the tools used by DAAC operators on a day-to-day basis:

1. Common Desktop Environment (CDE) Tool
2. Microsoft Office
3. Netscape Communicator
4. Netscape Enterprise Server
5. EOSView
6. Aster On-Demand Product Request Form
7. Subscription Server
8. Java Data Acquisition Requests Tool (JDAR)
9. Earth Science Online Directory (ESOD) Tool

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4.12.1 Common Desktop Environment

The ECS uses the Common Desktop Environment (CDE) COTS package to manage X windows. It is a commercial graphical user interface for UNIX supporting AIX, Digital UNIX, HP/UX, and Solaris operating systems. It provides users registered at an ECS site with generalized support for performing the basic operations listed in Table 4.12.1-1

Table 4.12.1-1. Common ECS Operator Functions Performed with CDE

Operating Function	GUI	Description	When and Why to Use
Start a desktop session	Basic login with userid and password	Invokes the CDE window manager	Access an ECS host
Use the Front Panel	Front Panel window	Contains set of controls for performing common tasks, i.e.,calendar, email, clock, print, file management.	As needed during work session.
Manage files	File Manager	File management tool	Perform file navigation/manipulation.
Use Application Manager	Application Manager	How to run applications using Application Manager, the main repository for applications in CDE	Need to invoke applications.
Customize the desktop environment	Style Manager	Allow for customizing the look and behavior of desktop.	Need to customize desktop environment
Use text editor	Text Editor	Supports creation/editting of short documents, e.g., memos, mail, resource files	Need to create short documents
Use mailer	Mailer	Allows for sending/receiving email messages.	Need to access email
Print	Printing	Explains how to access printers	Need to print/change default printer.
Use Terminal	Terminal	Explains how to display and customize terminal emulator windows on desktop	Need to access control terminal window
Use Icon editor	Icon Editor	Creates files for use as desktop icons or backdrops	Need to create icons/backdrops
Use Image Viewer	Image Viewer	Allows for capture, viewing, editing, printing, and translation of monochrome/color image files.	Need to perform image manipulation.
Use Address Manager	Address Manager	How to find cards on users, hosts, and systems and perform operations on them.	Need to access/manipulate info on users, hosts, systems.

4.12.1.1 Quick Start Using the Common Desktop Environment

After being registered as an ECS user by the site administrator, the user accesses the CDE window manager by logging into an ECS host using a defined UserID and password.

4.12.1.2 CDE Main Screen

Figure 4.12.1-1 presents an example of the type of support provided by the CDE window manager.

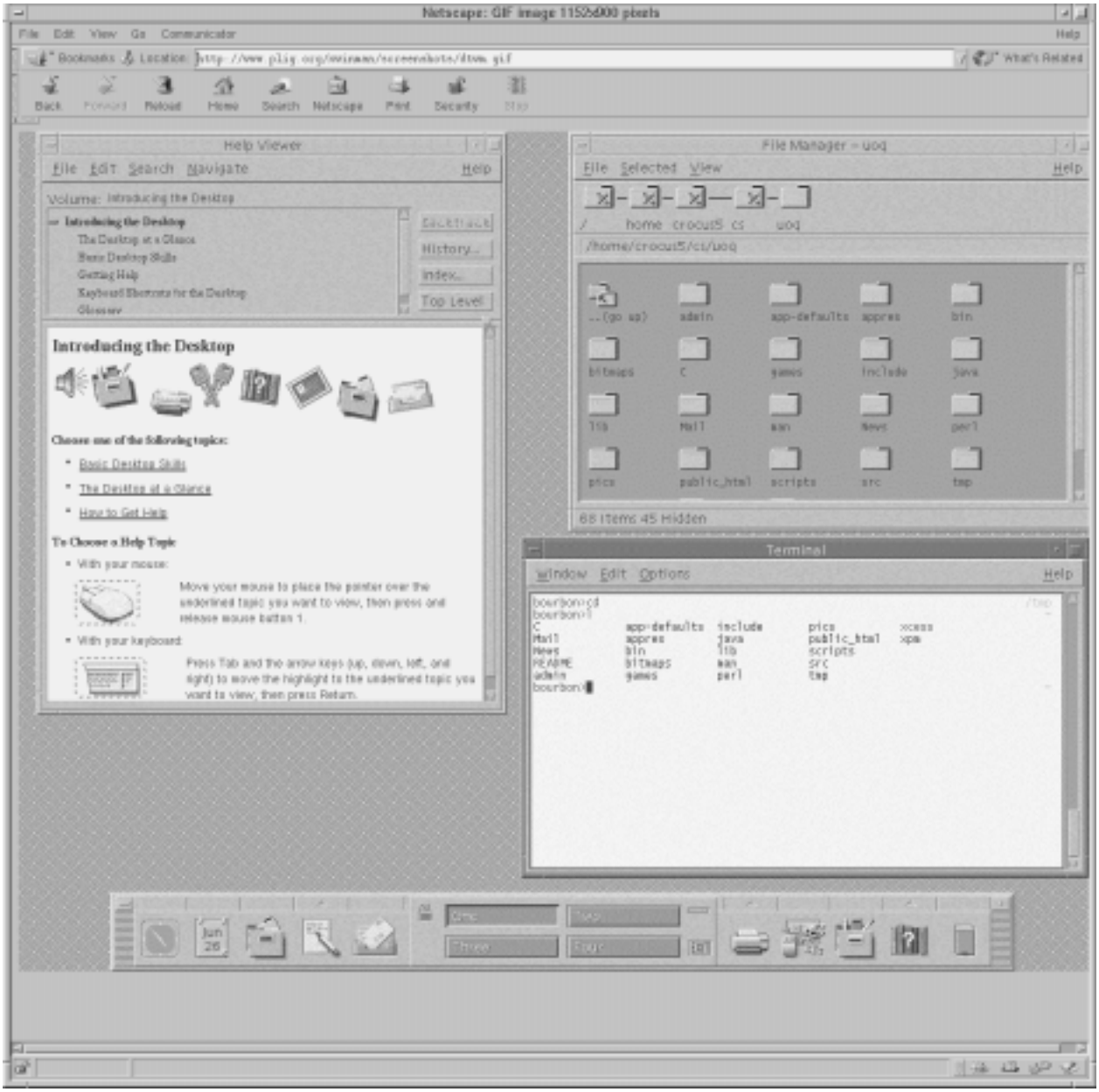

Figure 4.12.1-1. Example of CDE Window Manager Support Features

The Front Panel window at the lower part of the screen contains a set of icons allowing access to common support features. Through this panel the user can obtain time, date, monitor schedule, access email, edit text files, print, access file manager to navigate the file system, and application manager to invoke and manage custom applications.

The Help Viewer window to the left of the screen is a support feature the user can invoke to obtain detailed online explanation of CDE support capabilities.

The File Manager window at the upper right of the screen supports navigating the file system and creating, deleting, and moving file objects.

The Terminal window below the File Manager on the screen allows Unix command line access to operating system services.

In addition to the help accessible to the online user, detailed documentation of CDE capabilities from the user standpoint and the system administrator are available from the Sun vendor at the web location:

http://docs.sun.com/ab2/coll.8.40/@Ab2CollToc.

4.12.1.3 Required Operating Environment

Refer to the Solaris Common Desktop Environment: Advanced User's and System Administrator's Guide available at the Sun vendor's documentation link.

4.12.1.4 Databases

Not applicable

4.12.1.5 Special Constraints

Access to CDE is available only to registered users of ECS sites.

4.12.1.6 Outputs

Not applicable

4.12.1.7 Event and Error Messages

CDE issues both status and error messages to the operator screen. Error messages are listed in the CDE support documentation accessible at the web link:

http://docs.sun.com/ab2/coll.8.40/@Ab2CollToc.

4.12.1.8 Reports

None

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4.12.2 Microsoft Office

ECS provides Microsoft Office Professional to the DAACs to support general office automation tasks. Table 4.12.2-1 lists the operational tasks supported in the Office Professional package.

Table 4.12.2-1. Common ECS Operator Functions Performed with Microsoft Office

Operating Function	GUI Program	Description	When and Why to Use
Word processing	Microsoft Word	Allows operator to create, edit, open, save, and print documents. Allows incorporation of material generated in Excel and PowerPoint.	To create and maintain DAAC policies and procedures
Develop a spreadsheet	Microsoft Excel	Allows operator to manage, format, chart and analyze data imported from the MSS database.	Imports data from the MSS database to create a report on an as needed basis
Develop a presentation	PowerPoint	Allows operator to produce presentation slides, drawings, handouts, speaker notes, outlines and graphs. Allows incorporation of material generated in Excel and Word.	To develop briefings on an as needed basis
Develop a database	Microsoft Access	Allows operator to define, create, and maintain databases Allows operator to query database information and generate reports	Provides support for as-needed database querying and reporting. Allows export of data to Word and Excel for analysis.

4.12.2.1 Quick Start Using Microsoft Office

Microsoft's Program Manager contains the Microsoft Office Professional icon which can be selected to provide Excel, Word, PowerPoint, and Access icons that launch the applications. Refer to the following Microsoft documentation for more details about its applications:

Microsoft Word User's Guide
Microsoft Excel User's Guide
Microsoft PowerPoint User's Guide
Microsoft Access User's Guide

The documentation of Microsoft Office Professional, used as a basis and referenced in this section, is for use with the Windows 95 operating system.

Microsoft Office Professional is installed exclusively on PCs.

4.12.2.2 Invoking Microsoft Office

On a PC running Windows 95, the Microsoft Office Professional products can be invoked from the Office toolbar (if present) or the "Start" menu on the desktop display.

4.12.2.3 Required Operating Environment

For all COTS packages, appropriate information on operating environments, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled document for each product. To find the documentation for Office Professional refer to the ECS Baseline Information System web page, URL http://cmdm.east.hitc.com/.

4.12.2.3.1 Interfaces and Data Types

The Microsoft Office Professional applications Word, Excel, PowerPoint, and Access work alike and interface with each other as if they were a single program.

4.12.2.4 Databases

The individual Microsoft Office products maintain their "products" in proprietary file structures:

MS Word = **.doc**
MS EXCEL = **.xls**
MS PowerPoint = **.ppt**
MS Access = **.mdb**

Each release of these products can accept output from previous releases of the same product, and generally, their competitor's products available at the time of their release. However, they may not be able to use the same file extension name structures created by a later release. See the Special Constraints Section 4.12.2.5 below.

4.12.2.5 Special Constraints

The version of Microsoft Office Professional installed is Office 97 for Windows 95. Users must take care when importing files (.doc, .xls, ppt, and .and .mdb) that the files are not produced by a later version of these products.

4.12.2.6 Outputs

The Microsoft Office Professional products display their outputs on screen and produce printed output appropriate to the product.

4.12.2.7 Event and Error Messages

Microsoft Office Professional provides help windows to identify and explain any Microsoft Office error messages.

4.12.2.8 Reports

Refer to the associated Microsoft User Guide for detailed information on the generation of reports using Word, Excel, Powerpoint, and Access.

4.12.3 Netscape Communicator

Netscape Communicator is a GUI interface for browsing the World Wide Web (WWW) and for obtaining information from other sources. Some of the Netscape Communicator functions are:

View/process text/html files as well as other MIME formats
Provide an interface to Telnet, Gopher, FTP, Email, and Newsgroups
Read content of bulletin boards on the world-wide-web

Netscape Communicator is used to perform the following operator functions listed in Table 4.12.3-1. Please refer to the Netscape Communication's Help option for additional information on functionality not explicitly mentioned here.

Table 4.12.3-1. Common ECS Operator Functions Performed with Netscape Communicator (1 of 2)

Operating Function	Command/Action	Description	When and Why to Use
View Web Pages	Main window	• Operator views pages written in HTML source code • These pages provide images, text, and form templates	To obtain information and to process user-interactive forms
Process Forms	Main window	• Forms are provided for operator input • Certain operations will require a password	Used to search or manipulate the existing database (functions add, delete, modify)
Read a message and attachments	Netscape Mail and Discussions window	Allows the operator to read messages received. If there are any file attachments, they can also be read or processed if they are not text files.	To read a message and if applicable, read or process an attachment
Reply to a message	Compose Window	Allows the operator to send a message to the originator of the message received or to all recipients of the original message.	To send (reply) messages to the originator of a message or all recipients of the message with an option to include the original message in the reply

Table 4.12.3-1. Common ECS Operator Functions Performed with Netscape Communicator (2 of 2)

Operating Function	Command/Action	Description	When and Why to Use
Send a new message	Compose Window	Allows the operator to create and send a message. Text or binary files can be attached to the message.	To send a new message to one or more recipients with attached files.
Delete/undelete messages	Netscape Mail and Discussions window	Allows the operator to mark messages for deletion. The messages are permanently deleted when the Update option is selected or when quitting Messenger Mailbox. Messages can only be undeleted before Update is selected or before quitting Messenger Mailbox.	To delete messages and free disk storage space
Browse bulletin boards	Netscape Message Center window	Allows for exchange of information with users and scientists that share the same interest	To ask or provide information on the BB subject to a large community of users

4.12.3.1 Quick Start Using Communicator

For more information, the Netscape Communication's Help option is available online (Open the "Help" pulldown menu from the Netscape Communicator main screen and select Help Contents. The main page with the contents of the Netscape Help will appear. The operator can select subjects he/she is interested in by following the available links. A hardcopy of the displayed text may be obtained by opening the "File" menu and selecting "Print...").

4.12.3.1.1 Command Line Interface

To execute Netscape Communicator from the command line prompt use:
> **netscape &**

4.12.3.2 Netscape Communicator Main Screen

Once invoked, Netscape Communicator displays the startup screen shown in Figure 4.12.3-1.

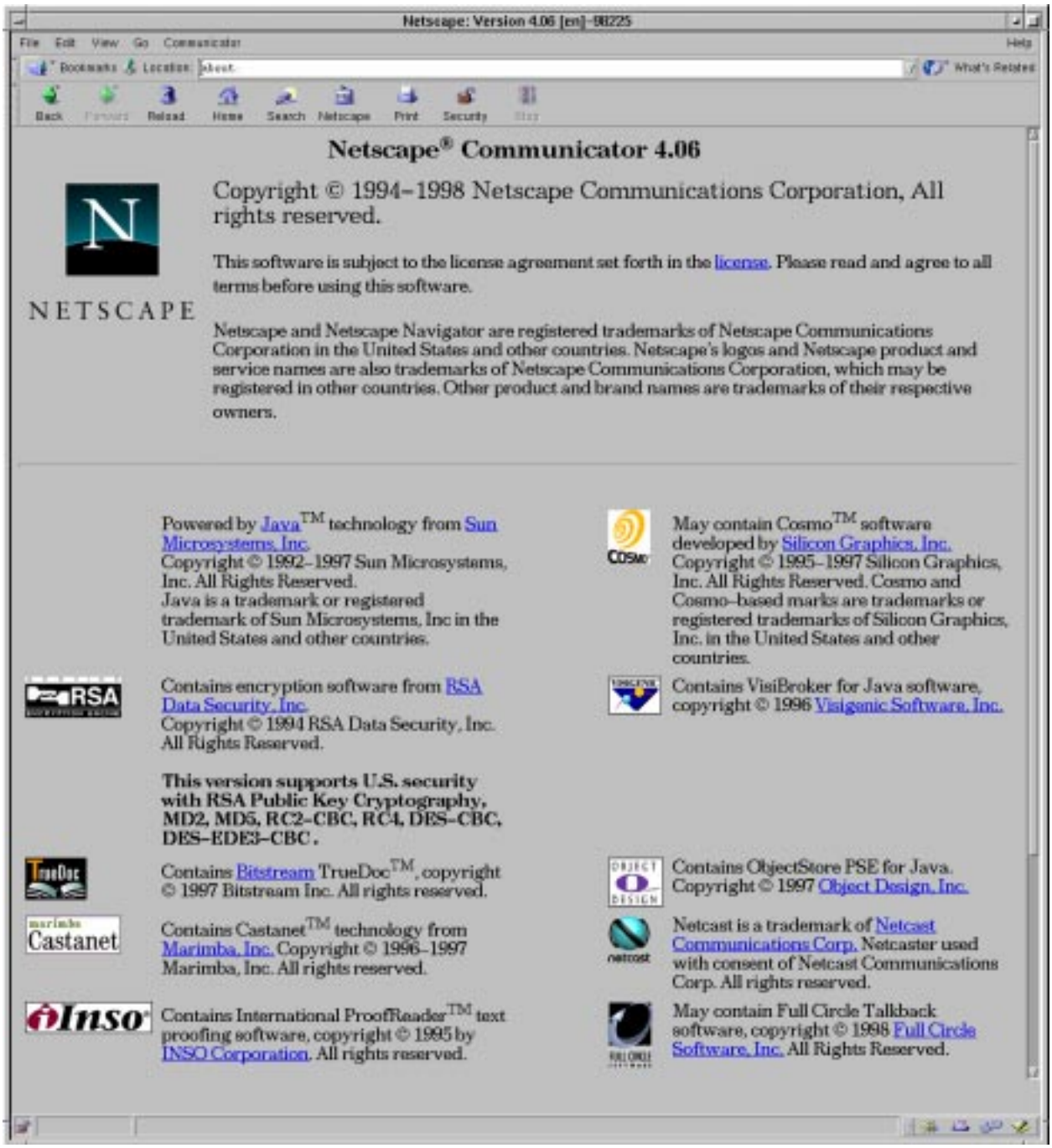


Figure 4.12.3-1. Netscape Communicator: Browser with Display Field

Clicking the mouse anywhere in the startup screen causes the browser to display the user's selected home page. An example of a home page is the ECS Data Handling System page shown in Figure 4.12.3-2.

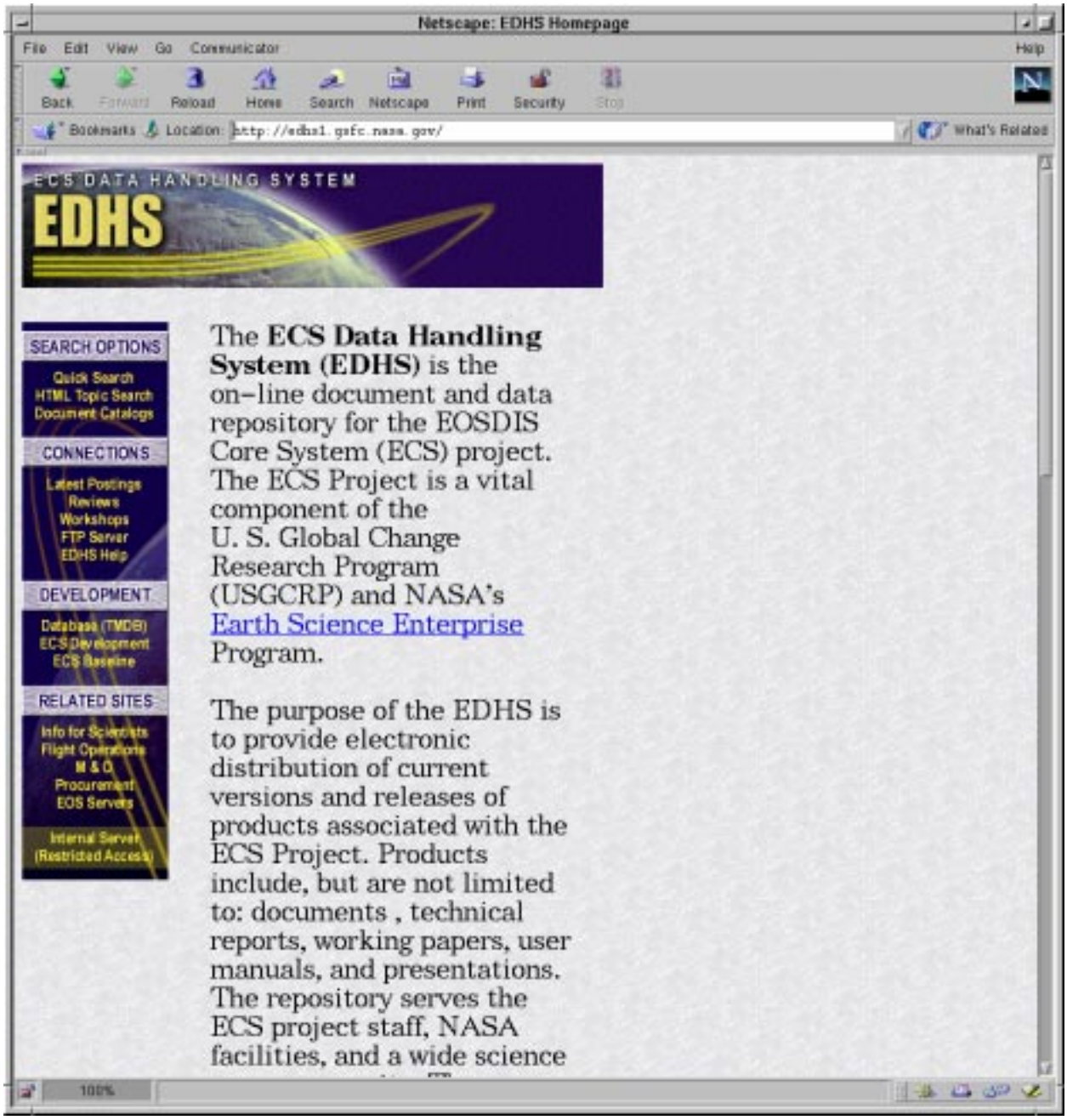


Figure 4.12.3-2. Netscape Communicator: EDHS Home Page

From the start-up Netscape Communicator screen, the operator has several choices for loading pages in any of the MIME formats known by Netscape Communicator:

- Move the cursor to a link in the display field and click on this link.
- Select a URL from the "Bookmarks" pulldown menu.

- Click on “File” and then “Open Page” of the Netscape Communicator Toolbar to enter a URL address or a file.
- In the “Location” text field beneath the Toolbar and Directory Buttons, type Ctrl+U (^U) to erase the line and type the desired URL.
- Modify a URL displayed in the “Location:” text area. Use the mouse to select the portion to be changed, press <Backspace> to delete the highlighted text, and enter the new text.

It is recommended that operators have bookmarks of pages that have to be accessed frequently (file bookmarks.html in the ~/.netscape directory). Refer to the *Netscape Communicator Handbook* for further details.

Buttons at the lower right corner of the screen provide direct access to functionality provided by, respectively, the browser, the mail message, the discussion group, and the composer windows.

4.12.3.3 Required Operating Environment

For all COTS packages, appropriate information on operating environments, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled document for each product. To find the documentation for Netscape, refer to the ECS Baseline Information System web page, URL http://cmdm.east.hitc.com/.

4.12.3.4 Databases

Netscape Communicator can interface with Sybase tables via cgi programs when operators process forms. Refer to the appropriate sections for the databases used by ECS tools that are accessible via Netscape.

While these databases are not directly required for the operation of Netscape Communicator, some form processing features would be hampered if the interface to these databases does not work.

4.12.3.5 Special Constraints

None.

4.12.3.6 Outputs

Netscape Communicator provides the outputs listed in Table 4.12.3-2 below.

Table 4.12.3-2. Outputs

Output	Description and Format
Screen Display	Shows the Netscape Communicator browser GUI screen, adjusts to the screen format
Hardcopy of Display Window	Printed version of the contents of the display window
Display Window saved to disk	Contents of the display window can be saved to disk in Text, Source or Postscript format
Modified, deleted or created data files	Processing of forms allows the operator to modify, delete or create data files

4.12.3.7 Event and Error Messages

Netscape Communicator issues both status and error messages to document the status of loading a document or to display the reason for not loading a document. For further information, refer to the *Netscape Communicator Handbook.*

4.12.3.8 Reports

None

4.12.4 Netscape Enterprise Server

The Netscape *Enterprise Server* is used in ECS to administer and manage all of the custom world-wide-web-based applications. An instance of the Netscape server is installed for each ECS application that relays on it and for each mode. For example, the interface server where both IOS and CLS applications run, there are six instances of the Netscape server - one for each of the three modes and one for each of the two subsystems. The port number to be used for each of these Netscape Enterprise Servers can be found in the XRP baseline.

The Enterprise Server COTS provides a great deal of functionality related to the administration of the web server, including:

1. **Administering the Server** (i.e., performing common server administration tasks with the tool provide by the Netscape Server like Server Selector, and Server Manager)
2. **Programming the Server** (i.e., using CGI, Java, and writing CGI application)
3. **Monitoring the Server** (i.e., viewing the access and error log files and archiving log files)
4. **Configuring the System Settings** (i.e., shutting down the server, tuning server performance, and changing network settings)
5. **Indexing Documents** (i.e., creating collections of documents)
6. **Cataloging the Server's Content** (i.e., running the catalog agent, browsing the server content)
7. **Provide Security and Encrypting Transactions** (i.e., setting security references, generating key files, and requesting and installing certificates)
8. **Managing Server Content and Styles** (i.e., specifying a document root, setting up virtual servers, using version control, and creating and using styles).

The Netscape Enterprise Server also allows the ECS operator to create and publish new web pages, through its Composer component.

Table 4.12.4-1 summarizes the most important functionality provided by the Netscape Enterprise Server. For a complete description of such functionality the reader is referred to the following more specific documentation:

Netscape Enterprise Server - Administrator's Guide for Unix

Netscape Enterprise Server - Programmer's Guide for Unix

Netscape LiveWire - Developer's Guide

Table 4.12.4-1 also provides a reference to the documentation that should be used to find information about specific tasks that can be accomplished with Netscape Enterprise Sever.

Table 4.12.4-1. Common ECS Operator Functions Performed with the Netscape Enterprise Server (1 of 4)

Operating Function	Command/Script	Description	When and Why to Use

Administering the server	See Administrator's Guide, Chapter 3, "Configuring and Managing your server"	• Using the Server Selector for:
		  • Install a new server
		  • Remove a server
		  • Configure administration
		• Use the Server Manager for performing periodic maintenance like:
		  • changing server name
		  • changing port number
		  • adding, changing, removing users form the user database files
			• When the need arises to manage multiple servers
			• When the server needs reconfiguration

Programming the server	See Administrator's Guide, Chapter 8, "Using programs with your Server", and the Programmer's Guide, Chapter 2, "CGI Basic"	Using CGI programs and Java Applets, Java Servlets, and JSQL • Writing CGI Application • Writing Servlets • Writing Enterprise Java Beans • Multitier web database solutions	• To run server-side applications • To allow the server to run programs that can process HTML forms and other data coming from clients and send a response back to the client

Table 4.12.4-1. Common ECS Operator Functions Performed with the Netscape Enterprise Server (2 of 4)

Operating Function	Command/Script	Description	When and Why to Use
Monitoring the server	Administrator's Guide, Chapter 9, "Monitoring the server"	• Viewing access and error log files • Archiving log files • Monitoring the network with the Simple Network Management Protocol (SNMP)	• During troubleshooting when the operator needs to examine log containing information on the server activity. • When the operator needs new log and error files • To graphically visualize information about a managed device (e.g., device is up or down, number of particular error messages received)
Configuring the system settings	Administrator's Guide, Chapter 5, "Configuring System Settings"	• Shutting down/ Restarting the server • Tuning server performance • Changing network settings	• When a reload of configuration files is required • To configure the server's technical options, including: Number of processes spawn max/min number of threads • listen queue size • DNS usage • When maintenance on the server requires: • Changing server location (i.e., directory) • Changing the server user account • Changing the server name • Changing the server port number • Changing the server binding address

Table 4.12.4-1. Common ECS Operator Functions Performed with the Netscape Enterprise Server (3 of 4)

Operating Function	Command/Script	Description	When and Why to Use
Indexing Documents	Administrator's Guide, Chapter 10, "Creating a text search interface"	• To create and maintain an end-user text search interface that allows client to search the web site	• When a customization of a text search interface is appropriate for tailoring the interface to the user community needs.

Cataloging the server's content	Administrator's Guide, Chapter 11, "Cataloging your web site"	• To automatically generate web pages that list and categorize the HTML files in the web site	• When the operator needs to provide web user with easy access to the web content by:
			  • listing all the HTML document in the web sites
			  • generating HTML views of the web site content organized by title, classification, author, and last-modified date
			  • generating automatic directory information (i.e., resource description) for HTML document in the web site

Table 4.12.4-1. Common ECS Operator Functions Performed with the Netscape Enterprise Server (4 of 4)

Operating Function	Command/Script	Description	When and Why to Use

Providing Security and Encrypting transactions	Administrator's Guide, Chapter 7, "Encryption and SSL"	• Setting security preferences	• When turning on the Secure Sockets Layer for the server and defining the system-wide preferences, including:
			  • SSL version
			  • Client certificates
			  • Cipher (i.e., encryption algorithm)

		• Generating key files	• When the operators needs to generates the server's public and private key
		• Requesting and installing certificates	• Requesting a certificate from a Certification Authority and installing the received certificate
Managing server content	Administrator's Guide, Chapter 4, "Managing Server Content"	• Setting the primary document directory	• When the operator wants to be sure that not all data present on the server is accessible by all end-users
		• Customizing public information directory	• When users on the host machine are to be allowed to add web document without the direct intervention of the web administrator
		• Enabling remote file manipulation	• When access control must be provided to remote users
		• Using Version Control	• To provide check-in, check-out, and roll-back capability to groups of people working on the same set of documents

4.12.4.1 Quick Start Using Netscape Enterprise Server

The Netscape Enterprise Server is managed from a single interface - the Server Selector. The administration server must be running before the operator can configure any specific web server using the Server Manager.

4.12.4.1.1 Command Line Interface

The Administration Server can be started by executing the following steps:

cd $ECS_HOME/<mode>/COTS/ns-home
./start-admin

where

$ECS_HOME/<mode>/COTS/ns-home is the directory where the Enterprise Server was initially installed.

This will start the administration server using the port that was selected during installation.

To access the Server Selector and proceed to access the functionality discussed in section 4.12.4.1 use a web browser to enter the URL for the administration server:

http://<servername>.<ECSdomain>.<domain>:<portnumber>

The operator is then prompted for a username and a password. Once this information is entered the Netscape Server Selector web page appears as shown in figure 4.12.4.-1.

Note that the browser used for this task must be capable of supporting frames and JavaScript. Netscape. Navigator 3.0, included in the ECS baseline, is capable of supporting both frames and Java Script.

4.12.4.2 Netscape Enterprise Server Main Screen

The Netscape Server Selector shown in Figure 4.12.4-1 is the main screen that appears when the Netscape Enterprise Server is started.

The figure shows how several servers can be brought on or off. Additionally, three buttons are made available to the operator. The associated functionality includes the following:

- Install a new Netscape Enterprise Server
- Remove a server from the host machine
- Administer the server configuration

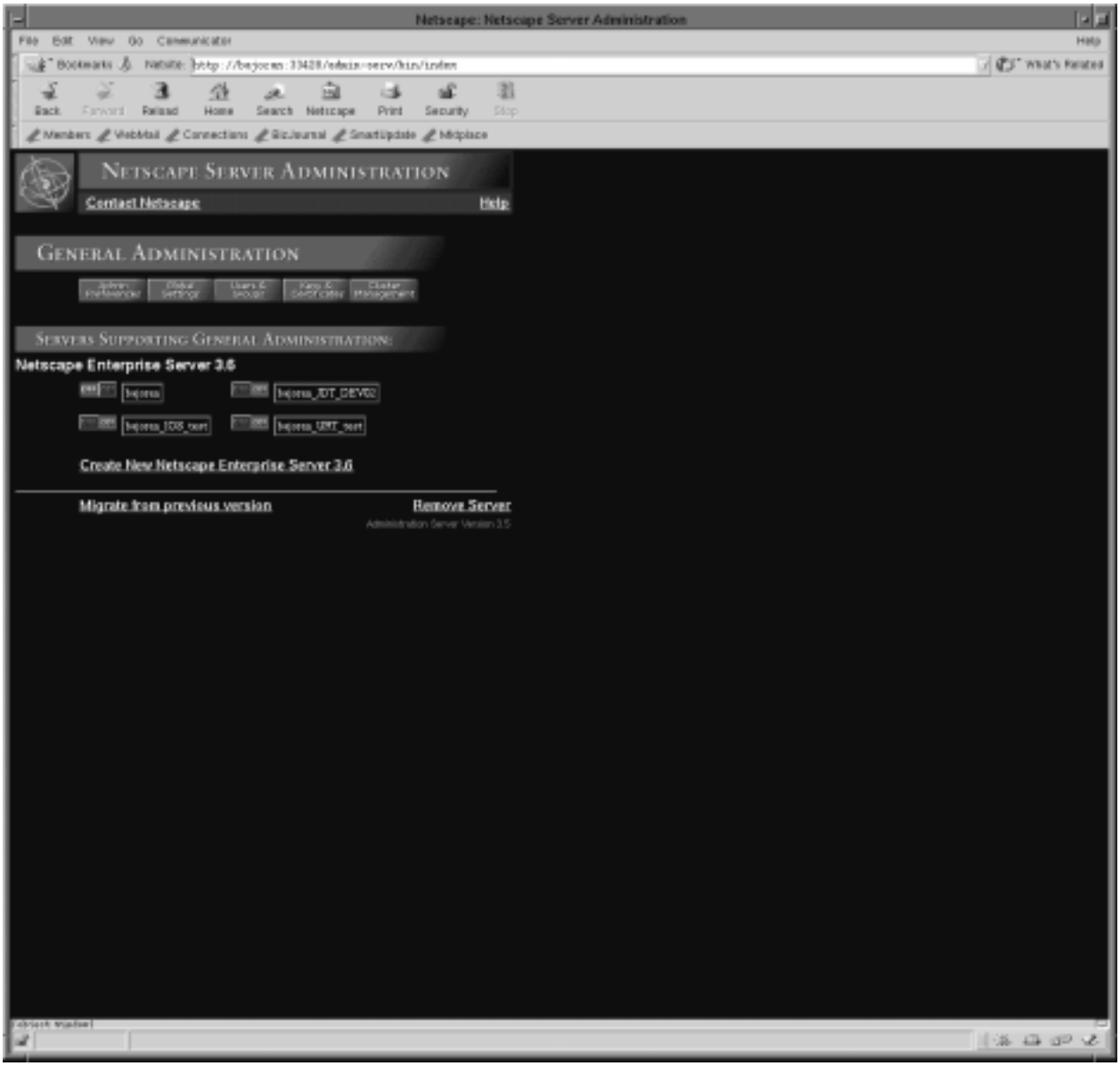


Figure 4.12.4-1. Netscape Server Selector Screen

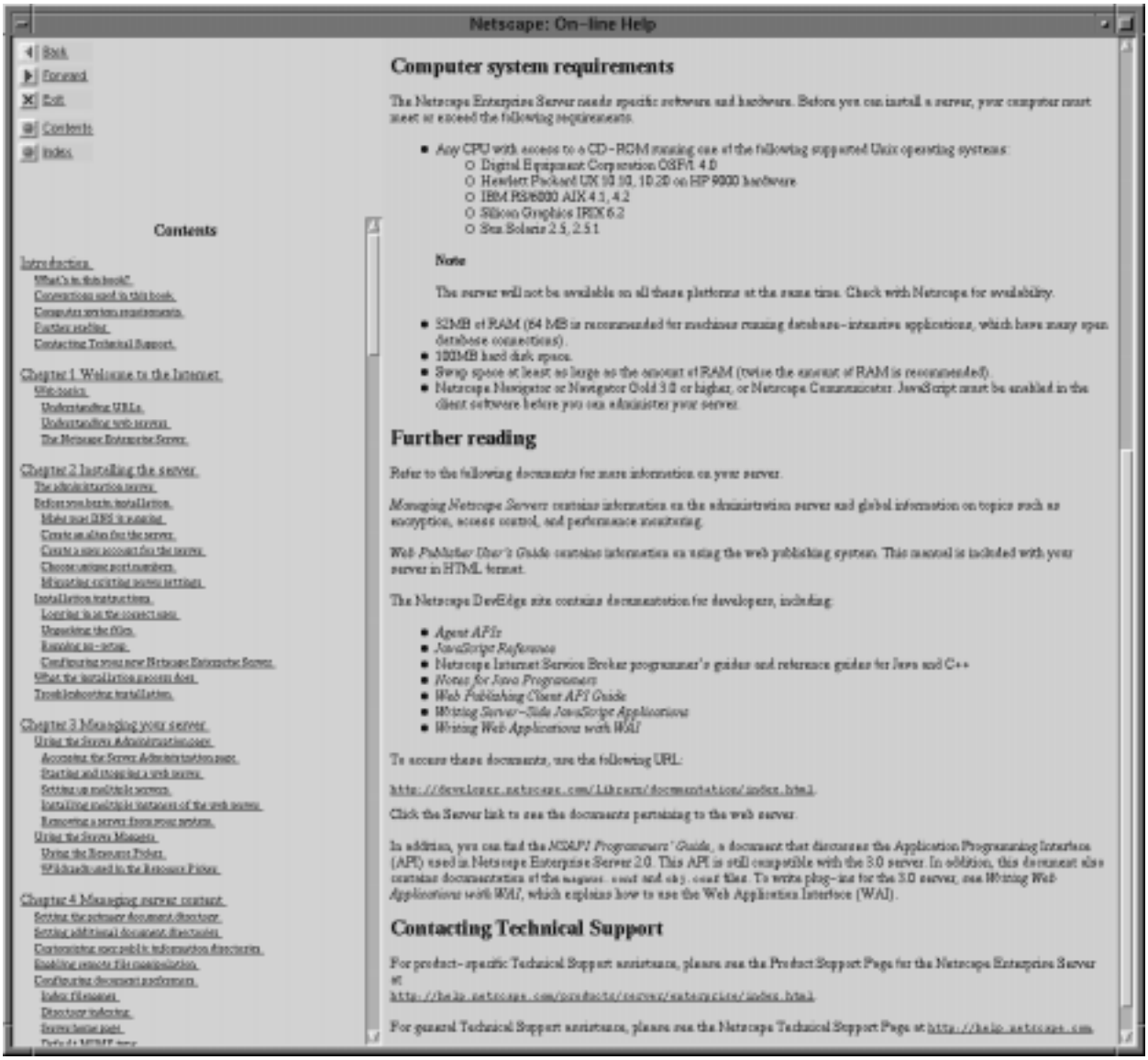


Figure 4.12.4-2. Netscape Server Admin Help

4.12.4.3 Required Operating Environment

The Netscape Enterprise Server is a COTS package. For all COTS packages, appropriate information on operating environment, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled document for each product. To find the documents for the Enterprise Server, please refer to the ECS Baseline Information System web page, at the following URL:

http://cmcd.east.hitc.com/.

Within the context of the proper functioning of this tool, it needs to be pointed out that during the installation of the CLS software a configuration file, named obj.conf, is generated that requires the server name as specified during the Netscape server configuration process. Thus, the operator installing the CLS software has to be made aware of the server name used during the Netscape server configuration.

4.12.4.4 Databases

The Enterprise Server uses a High-speed database called DBM that is mainly used for storing and administering the following information:

User (i.e., adding, removing, listing, and editing profiles of users allowed (or denied) to access the resources available on the server)
Groups (i.e., administering users by grouping features)
Password (i.e., creating and changing passwords)

Refer to the Netscape Enterprise Server - Administrator's Guide for UNIX for further information on the database used by the Enterprise Server.

4.12.4.5 Special Constraints

None

4.12.4.6 Outputs

The Enterprise Server allows for the real-time monitoring of the server activities. Several outputs are made available to the Operator to understand the way the server is handling the network traffic. The output data include:

How much of the server resources are being used
Percentage of threads being used totally
Number of idle (i.e., awaiting connection) threads
Number of threads dealing with reading requests
Number of threads dealing with writing responses
Number of threads dealing with resolving hostnames

Additionally, the monitoring of the server provides the output of the following server totals data:

Bytes transferred
Total requests
Bad Requests

See the Administrator Guide, Chapter 9, “Monitoring the server” for further information.

4.12.4.7 Event and Error Messages

All errors encountered by the server are logged in an error log file.

This file also contains information about the major server events, such as when the server was started. Incorrect user authentication is also included in this file.

4.12.4.8 Reports

A log file called *access* is where all the main activities, regarding the server administrated by the Enterprise Server are logged. The operator can customize the *access* logging for each server resource by specifying whether to log accesses, who not to record accesses from, and whether the server should spend time looking up the domain names of the clients when they access a resource.

Format used for the *access* log is selectable by the operator and includes:

Common Logfile Format
Flexible log format
User customizable format.

Refer to the Administration's Guide, Chapter 9, "Monitoring the server" for additional information on the available reports from the Netscape Enterprise Server.

4.12.5 EOSView

EOSView is a custom Hierarchical Data Format (HDF) file verification tool. It is for use by anyone who wishes to verify or inspect EOS data products in HDF EOS or HDF format. Users include EOS instrument team science software developers and data product designers, DAAC personnel, and end users of EOS data products, i.e., scientists and researchers.

EOSView displays the contents of HDF files and the contents of files containing HDF-EOS data. Individual objects can be selected for display. Displays include raster images, datasets in tables, pseudo-color images of datasets, attributes, and annotations. Simple animation can be performed for a file with multiple raster images.

EOSView has a unique interface for handling HDF-EOS data structures. The Swath/Grid/Point interface uses only HDF-EOS library calls. The EOSView operator will not see the underlying HDF structures but will be prompted for which parts of the structure to view.

EOSView is used to perform the operator functions listed in Table 4.12.5-1.

Table 4.12.5-1. Common ECS Operator Functions Performed with EOSView (1 of 2)

Operating Function	Command/Script or GUI	Description	When and Why to Use
Display HDF file contents	EOSView File Contents window	Looks at data file images, metadata, and auxiliary information	To verify structures put in a file
Display Raster Image	Image Display window	Displays Browse images, geolocated maps, etc multiple zoom features in image display available pan feature available multiple palettes available	To view a snapshot of an image (not data)
Animate Raster Images	Animation Window	Presents, in order, images as they appear in each file	To show a succession of movement (e.g., temperature adjustment from one image to the next)
Display of SDS data in table	SDS data table Vdata table	Displays a one or two dimensional list of data in a scrollable list	To view/compare associated numbers
Expand a Vgroup	Select “Vgroup” from File Contents window	Vgroups are logical groupings of information such as Vdata, SDS data, and images	To view information by a certain subject (e.g., the information associated with Geolocation)

Table 4.12.5-1. Common ECS Operator Functions Performed with EOSView (2 of 2)

Operating Function	Command/Script or GUI	Description	When and Why to Use
Pseudo-color display of SDS data	Image Display Window	Converts data into a visual image	To view the pseudo-color image of an SDS table
Display text objects	Text (Attributes) Window	Describes the types of data strings for an individual object or for an entire file	To look at factors when doing computations (e.g., longitude/latitude)
Hypertext help	On-line Help	On-line help is available from all menu bars	to help in the navigation and use of EOSView
Swath/Point/Grid interface (HDF-EOS)	File Contents Display window for swath, point and grid files	View HDF-EOS objects at a high level (i.e., data types cannot be broken down)	To view segments of data in terms of swath, a point on the earth, and grid (e.g., lat/long) data
Plot VData	EOSView Plot Window	Static line plot display of x and y data (from a Vdata Table)	To view line plot of data capabilities
Plot SDS Data	EOSView surface/contour plot window	Surface or contour plot of SDS	To view plots of SDS tables

4.12.5.1 Quick Start Using EOSView

EOSView, once downloaded from ***edhs1.gsfc.nasa.gov*** using the ftp utility, is started from the UNIX command line by entering:

>>EOSView

4.12.5.1.1 Downloading EOSView

Downloading EOSView is accomplished using the ftp utility as follows:

>ftp edhs1.gsfc.nasa.gov
Name**: anonymous**
Password: **<your e-mail address>**
ftp>**quote site group sdptk**
ftp> **quote site gpass ecs-tkit**
ftp>**cd eosview**

(A README file will also be provided in this directory.)
ftp>**get README**

(The *README* file will answer many questions you have about running EOSView. Change to the eosview directory that matches your hardware.)

dec/
hp/
ibm/
sgi/

sun/
source/

(Once in the directory set type to I, download the files, and exit.)

ftp>**bin**
ftp>**mget ***
ftp>**bye**

The following files will be downloaded:

EOSView	(executable)
eosview.csc	(hypertext on-line help file)
eosview.uid	(user interface description file)
eosview.dat	(IDL commands file)

If it is desired to view the EOSView source code, change to the source/ directory and download the file EOSVIEW_source.tar.Z. This is a compressed tar file. To unload the contents of this file, type:

>**uncompress EOSVIEW_source.tar.Z**
>**tar xvf EOSVIEW_source.tar**

Section 4.12.5.3 identifies environment variable settings used by EOSView. These should be initialized prior to starting EOSView.

4.12.5.2 EOSView Main Screen

The EOSView Main Window shown in Figure 4.12.5-1 displays the current version of EOSView and date.

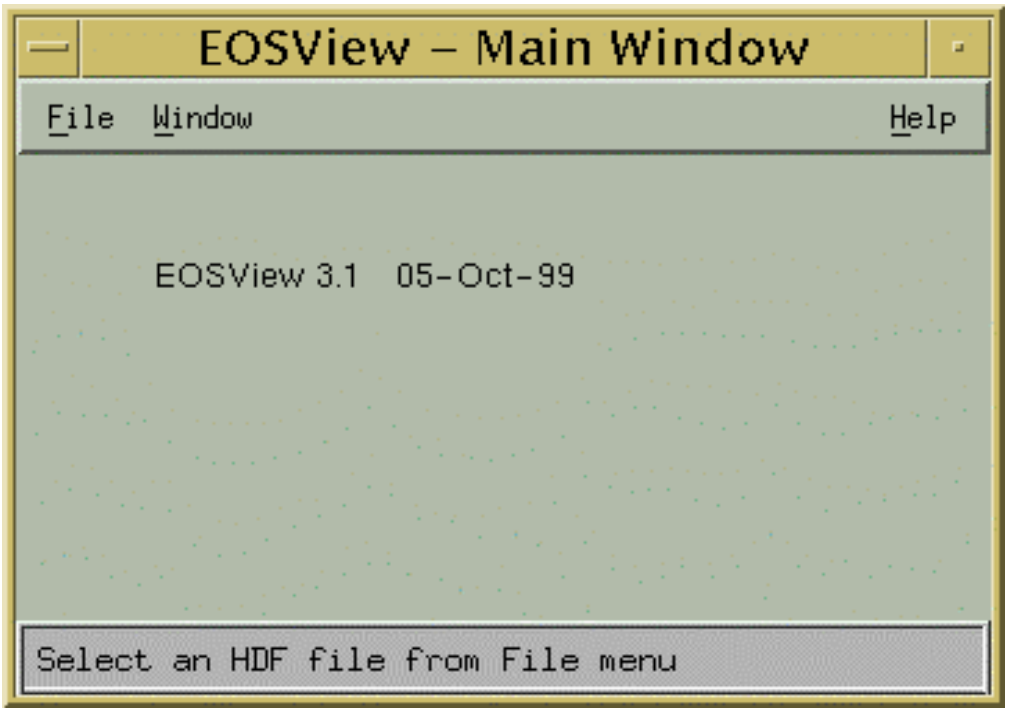


Figure 4.12.5-1. EOSView Main Screen

From the **File** pulldown menu, the operator can select Open or Exit.

- **Open** -- This will cause a file selection dialog to appear (shown in Figure 4.12.5-2)
- **Exit** – Exits EOSView

From the **Window** pulldown menu, the operator can select an EOSView screen and have the focus change to that window as long as it is currently open. This feature is described in Section 4.12.5.2.23 “Window Pulldown Menu.”

From the **Help** pulldown menu, the operator can select help on context, on help, on window, keys, contents, index and version. This feature is described in Section 4.12.5.2.25 “Help Pulldown Menu.”

4.12.5.2.1 EOSView File Selection Dialog

Selecting **Open** from the EOSView File pulldown menu will bring up the File Selection Dialog shown in Figure 4.12.5-2. This is a standard file selection dialog box that lets the operator search through directories and select an HDF file.

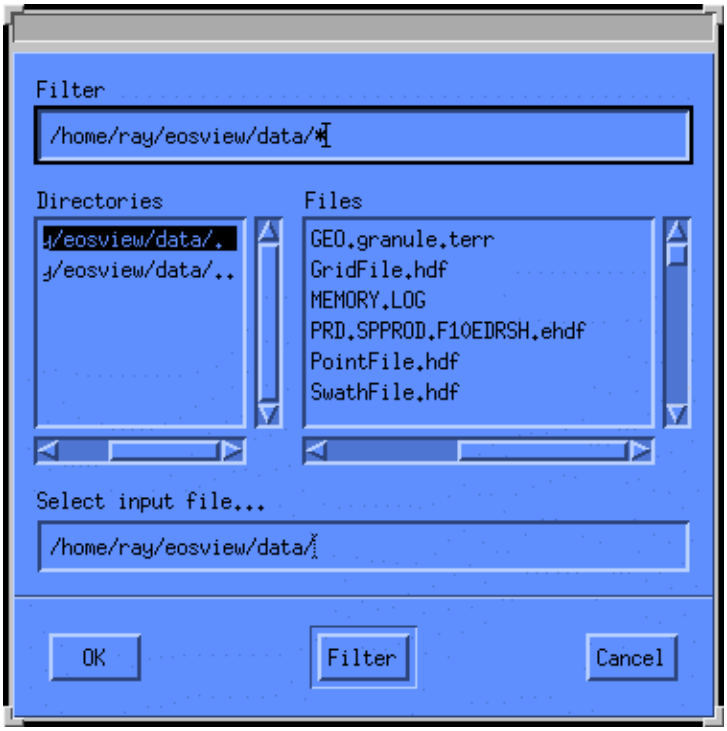


Figure 4.12.5-2. File Selection Dialog

Table 4.12.5-2 describes the File Selection fields.

Table 4.12.5-2. EOSView File Selection Field Description

Field Name	Data Type	Size	Entry	Description
Filter	system generated (editable)	unlimited	required	displays file selection parameters to filter the directories
Directories	selection	unlimited	required	displays a list of directories
Files	selection	unlimited	required	displays a list of files to select from
Select Input File	system generated (editable)	unlimited	required	displays the filename selection

In addition, the following pushbuttons are provided:

- **OK** – opens the specified file
- **Filter** – filters through the directories in layers until the desired directory/file is displayed
- **Cancel** – closes the file selection dialog

4.12.5.2.2 File Contents Display Pop-up

Once the HDF file has been selected, the File Contents Pop-up (see Figure 4.12.5-3) for that file will appear. This is a scrollable window with the following menu items:

- The **File** pulldown menu (described in Section 4.12.5.2.21) provides additional information about a file and provides a way to close a file.
- The **Options** pulldown menu (described in Section 4.12.5.2.22) and its Animate images selection becomes sensitized when the selected file contains multiple Raster Image Groups. This will cause all the images to be lined up and displayed in order in an EOSView - Animation Window.
- From the **Windows** pulldown menu, the operator can select an EOSView window and have the focus change to that window as long as it is currently open. This feature is described in Section 4.12.5.2.23 “Window Pulldown Menu.”
- From the **Attributes** pulldown menu (described in Section 4.12.5.2.24), the operator can view the global attributes for the selected HDF file.
- From the **Help** pulldown menu (described in Section 4.12.5.2.25), the operator can select help on context, on help, on window, keys, contents, index and version.

To select an HDF object simply double-click on the object that is displayed in the scrollable window. Objects can be Numeric Data, Vdata, Vgroup, Raster Images, or Grid/Swath/Point data. Each of these objects are described in the following sections.

4.12.5.2.3 Numeric Data Group

In this example, the GEO.granule.terr HDF file was selected from the File Selection Dialog, bringing up the File Contents Display Pop-up shown in Figure 4.12.5-3.

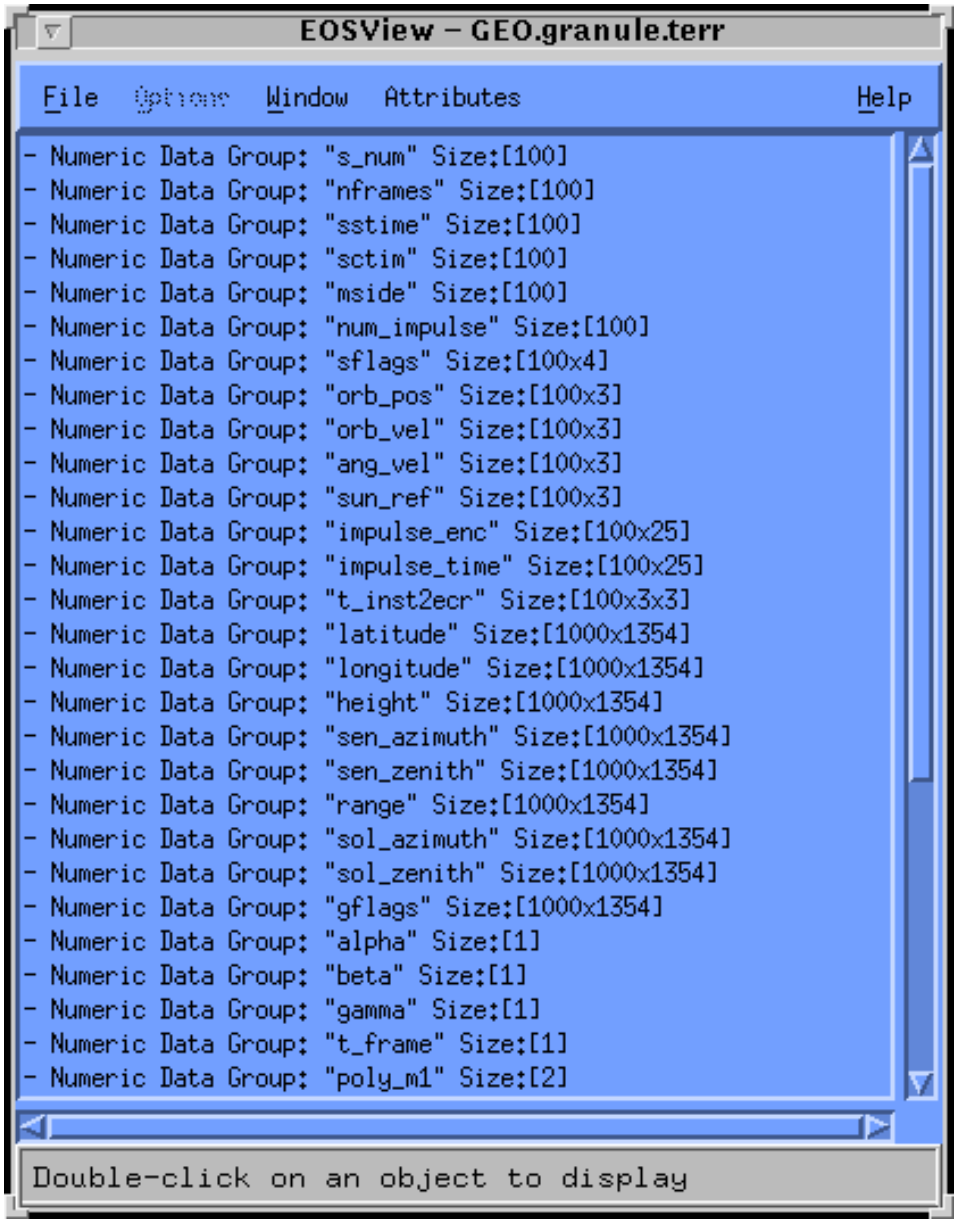


Figure 4.12.5-3. EOSView File Contents Pop-up

Double-clicking on an item from the EOSView File Contents Pop-up (in this example, Numeric Data Group: “sol_azimuth” Size : [1000X1354] was selected) brings up the Multi-Dimension SDS window as shown in Figure 4.12.5-4. This window allows the operator to select dimensions and indices for other dimensions.

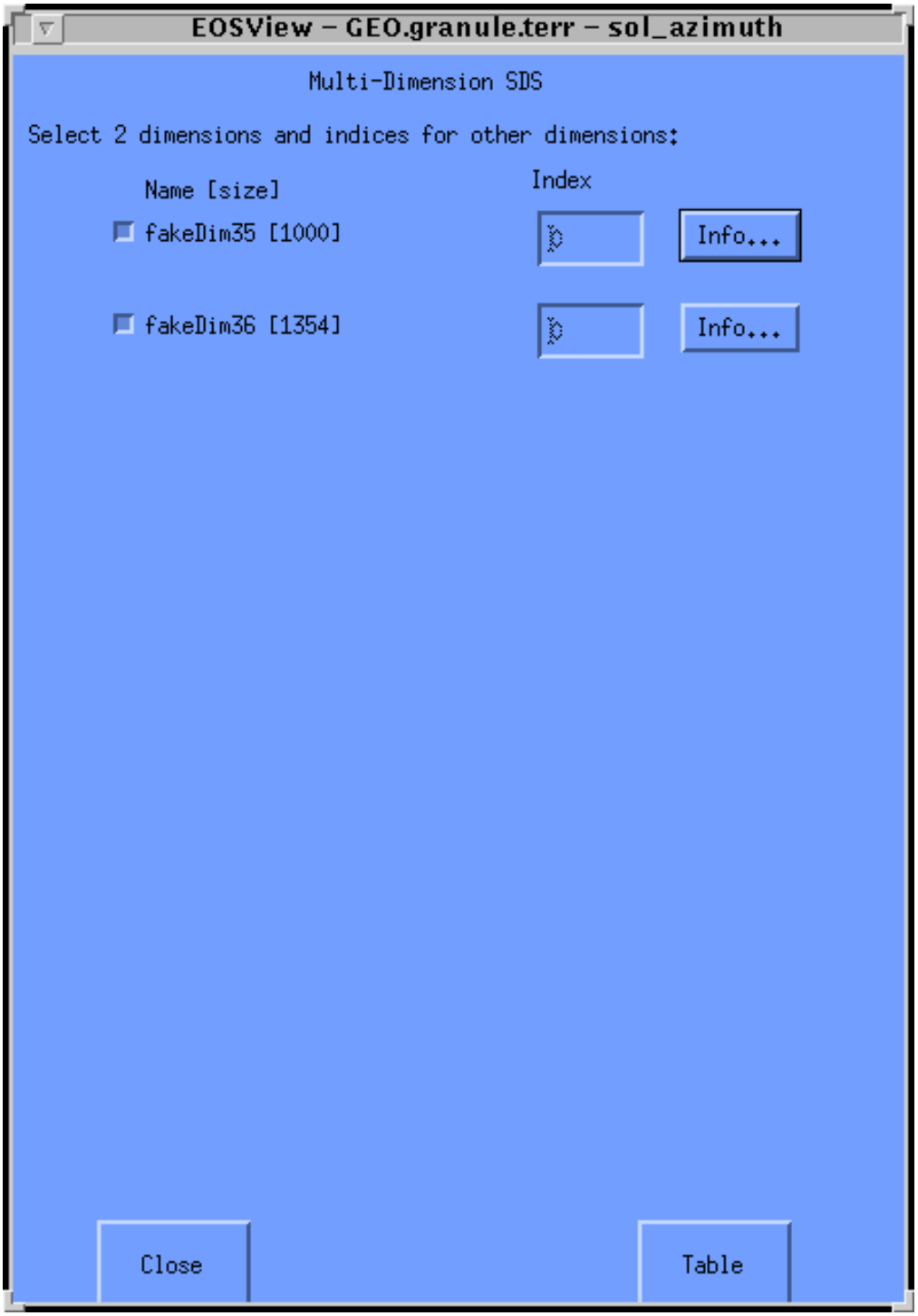


Figure 4.12.5-4. Multi-Dimension SDS Pop-up

Table 4.12.5-3 describes the fields of the Multi-Dimension SDS Pop-up.

Table 4.12.5-3. Multi Dimension SDS Field Description

Field Name	Data Type	Size	Entry	Description
Index	integer	N/A	Required	Index of involved dimensions. For the selected dimension, the default value is 0. For the unselected dimension, the number can be as large as what is in brackets after the dimension name.
Table	Button	N/A	Optional	Clicking this button brings up a table window (see Figure 4.12.5-6) that will display a 1 or 2 dimensional list of the data as either a Scientific Data Group or Vdata.
Close	Button	N/A	Required	Closes the window

EOSView can only display 2-dimensional (2-D) datasets. If a dataset contains more than 2-D, a 2-D slice of the dataset needs to be selected. This is accomplished by selecting ONLY 2 dimension boxes to the left of the dimension name. The other dimensions can have an index entered in the text box. Additional information for each dimension can be displayed in a separate window by pressing the button next to the dimension the information is desired. Clicking on the **Info** button will bring up a Dimension Information pop-up shown below in Figure 4.12.5-5.

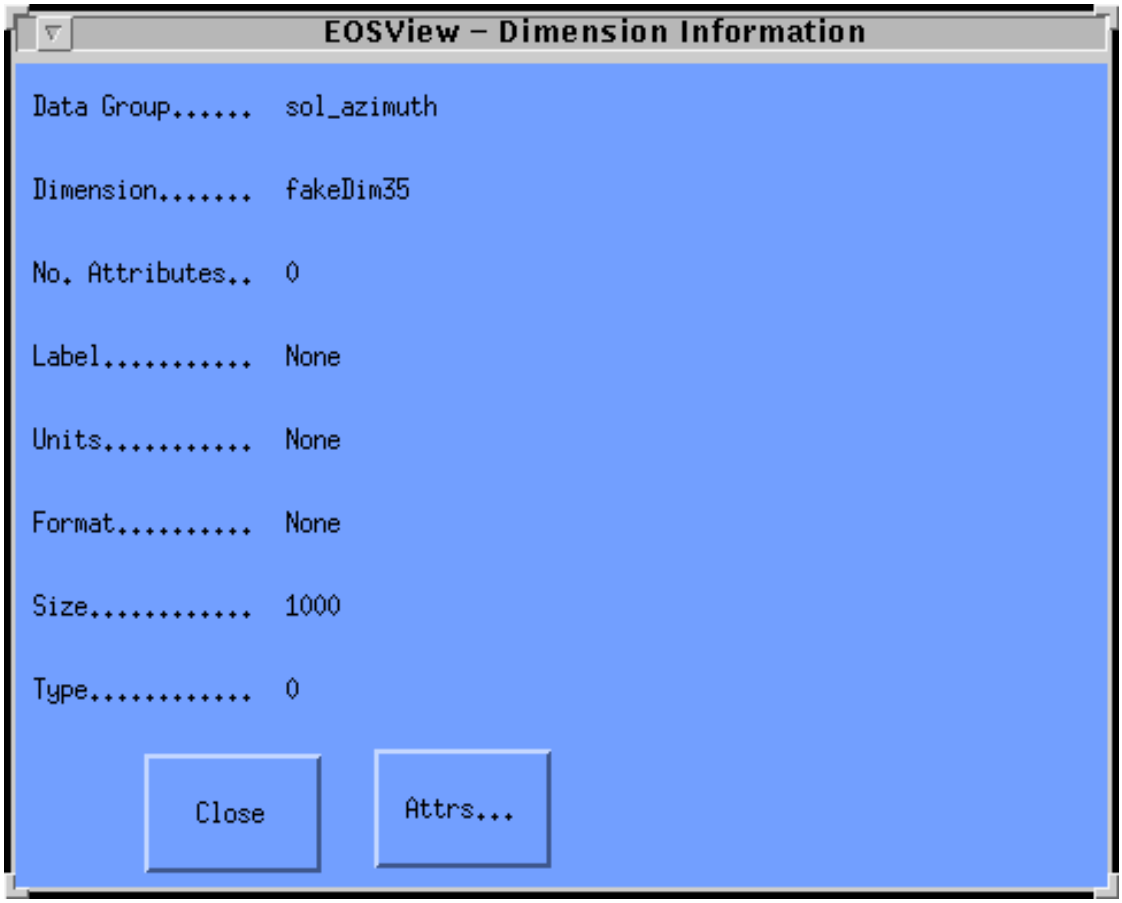


Figure 4.12.5-5. Dimension Information Pop-up

This window contains information such as number of attributes, units, format, size, etc. From this window, the operator can display textual output of the attributes for this dimension by clicking on the **Attrs…** button. Selecting **Close** closes the EOSView - Dimension Information Window.

Selecting the **Table** button from the Multi-Dimension SDS window brings up a table window as shown in Figure 4.12.5-6. The table window will display a 1 or 2 dimensional list of the data as either a Scientific Data Group or Vdata. The window is sizable and contains horizontal and vertical scrollbars.

The **File** pulldown menu contains the following items, as shown in Figure 4.12.5-6:

- **Make Image** - This will create a pseudo-color image of the selected table. Selecting this option causes the Min/Max Values Pop-up to appear (Figure 4.12.5-14).
- **Plot** - if the table has been created from an SDS the operator has the option of converting the table to a surface or contour plot as shown in Figure 4.12.5-7.

- **Attributes** - This displays text attributes assigned to this table. Selecting this option will cause the Attributes Text Display Pop-up to appear as shown in Figure 4.12.5-34.
- **Statistics** - EOSView has basic statistical capabilities for table data. An SDS table will have the minimum, maximum and average for the entire table displayed in the EOSView - Stats window (see Figure 4.12.5-12). For a table created from Vdata data, the same stats will be calculated for each column of data (field of Vdata). The EOSView stats window displays the name, minimum, maximum, and average values of a table. The name corresponds to the name of the SDS or Vdata field name. The data is not editable and non-selectable. Hitting the "Ok" button will close the EOSView Stats Window.
- **Jump To** – This option allows the operater to jump to a specific row in a table. Selecting this option causes the Jump To Dialog to appear (Figure 4.12.5-12). The user may enter the desired row number. Once the OK button is pressed the desired row number will appear in the first row of the table. See Section 4.12.5.2.7 for a description of the Jump To… option.
- **Save** - This option allows the operator to save the table in either ASCII or binary format. Once the operator has selected ASCII or binary from the cascading menu, the EOSView File Save Dialog is displayed (see Figure 4.12.5-13). This window is similar to the EOSView File Open Dialog. EOSView will only save tables to a new file, therefore, a unique file name must be entered in the "Save as:" text field.
- **Close Window** - Closes the table window.

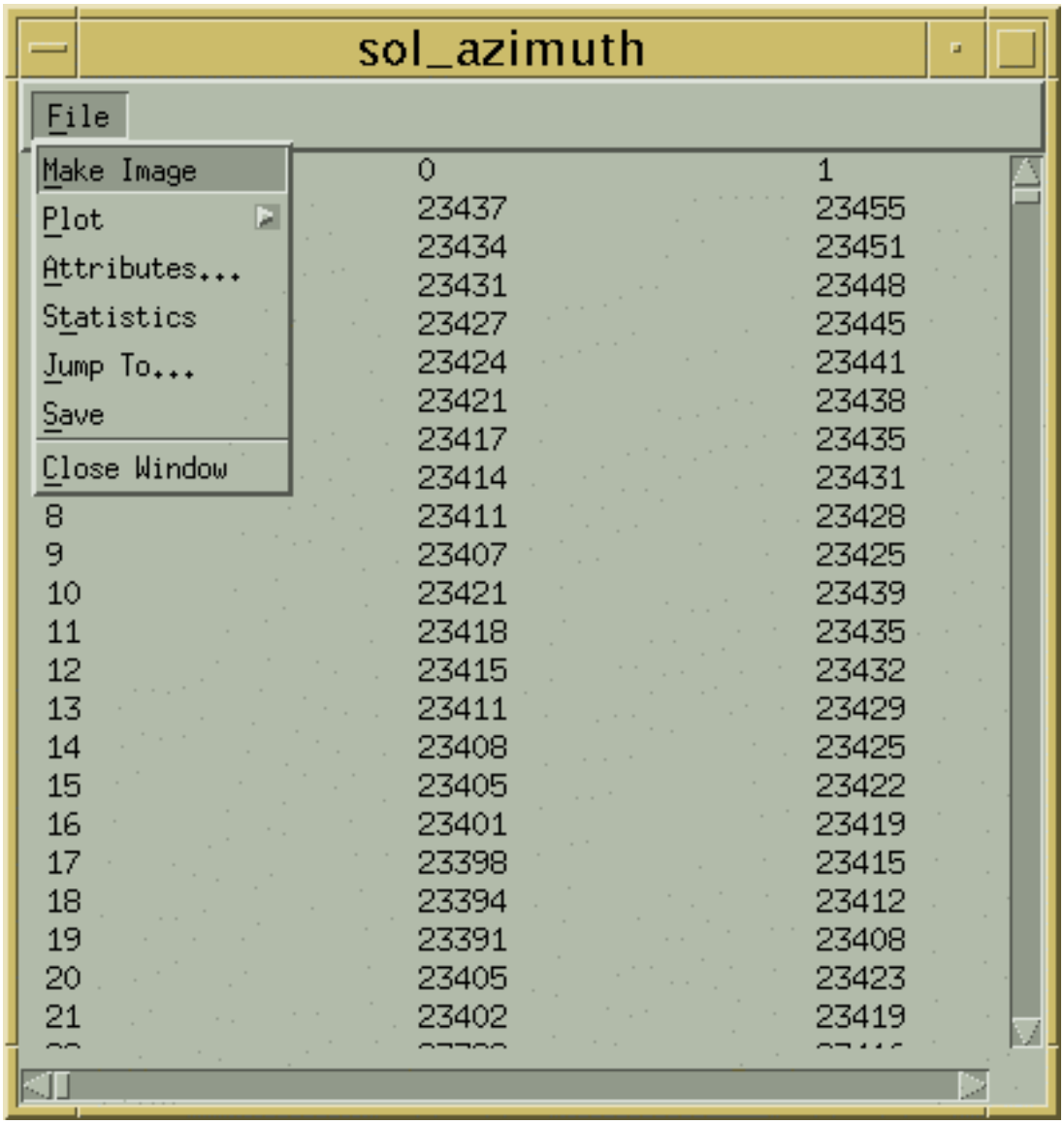


Figure 4.12.5-6. EOSView "sol_azimuth" Table Pop-up

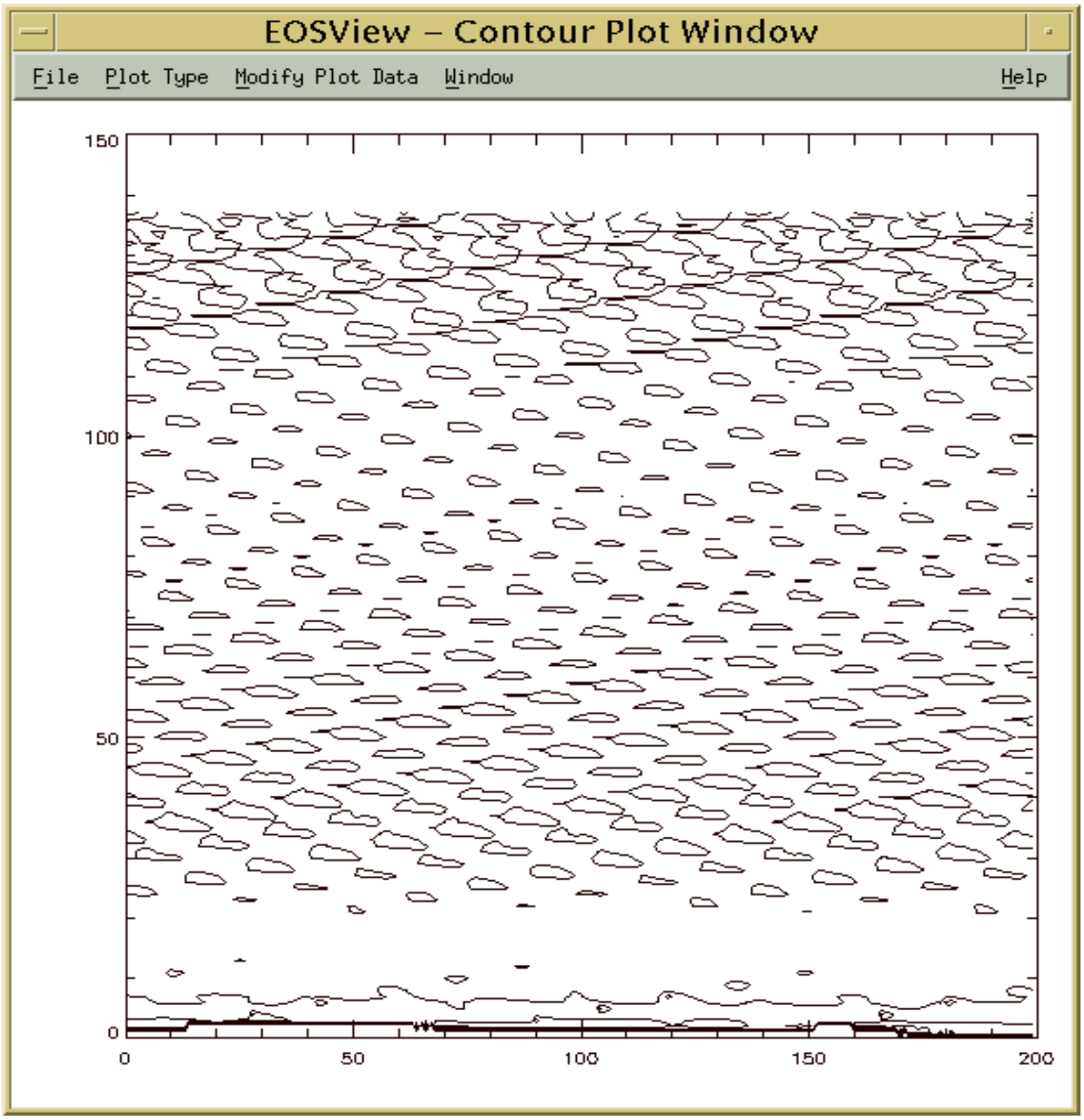


Figure 4.12.5-7. EOSView Contour Plot Pop-up

4.12.5.2.4 Surface/Contour Plot

The EOSView Contour/Surface Display will display a surface or contour plot of the selected Numeric Data Group. The window contains a menubar and can be resized.

- The **File** menubar option contains only the **Close** option. Selecting it will close the surface/contour plot window.
- The **Plot Type** menubar option acts as a toggle between the surface and contour plots. If the current plot being displayed is a contour plot then the option listed will be **Surface Plot**. If the current plot being displayed is a surface plot then the option listed will be **Contour Plot**. Selecting this option will cause a new window to appear with the selected plot.
- The **Modify Plot Data** menubar option allows the user to modify the plots based on three criteria. The user may modify a plot by excluding a range of data, excluding up to three individual values, or plotting between a minimum and maximum value.
- The **Window** option lists, in a pull-down menu, all windows, which are currently open. See Section 4.12.5.2.23 "Window Pulldown Menus."
- The **Help** option provides user supporting information.

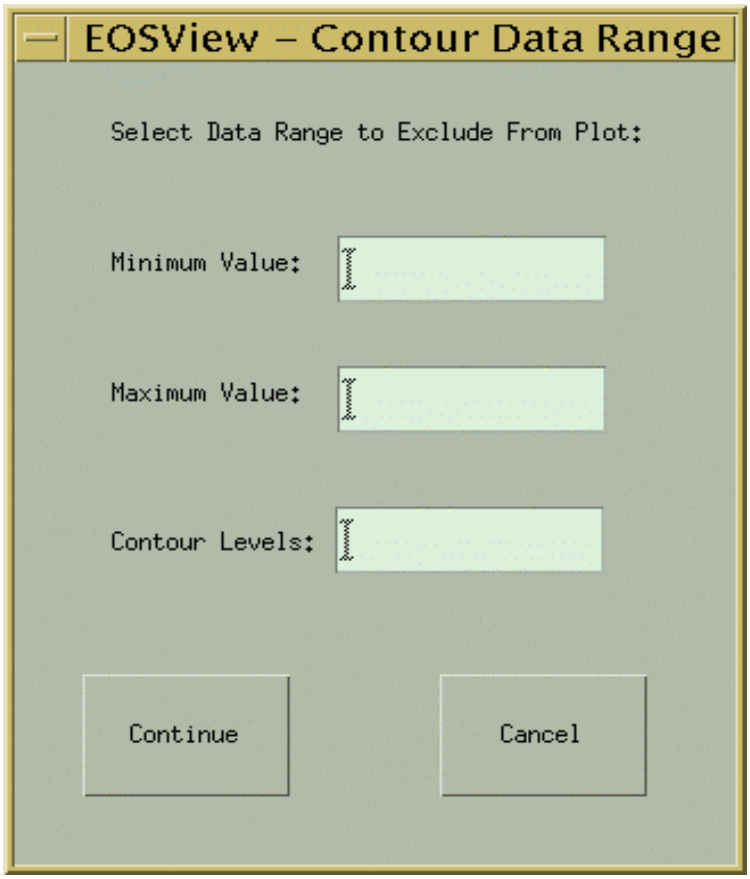


Figure 4.12.5-8. Contour/Surface Data Range Pop-up

The option **Data Range to Exclude** listed under the **Modify Plot Data** menubar option will cause the Contour/Surface Data Range window to appear (Figure 4.12.5-8). The user can select a range of data to exclude from the plot by entering the minimum value to exclude in the Minimum Value text field and the maximum value to exclude in the Maximum Value text field.

The user can select the number of contour levels desired by entering the number in the Contour Levels text field. Entering data in the Contour Levels text field is optional. The Contour Levels text fields will only appear in the Data Range Pop-up if the plot was a contour plot. Pressing the **Continue** button will cause a new plot to be drawn without the data range entered. Pressing the **Cancel** button closes the window with no further action.

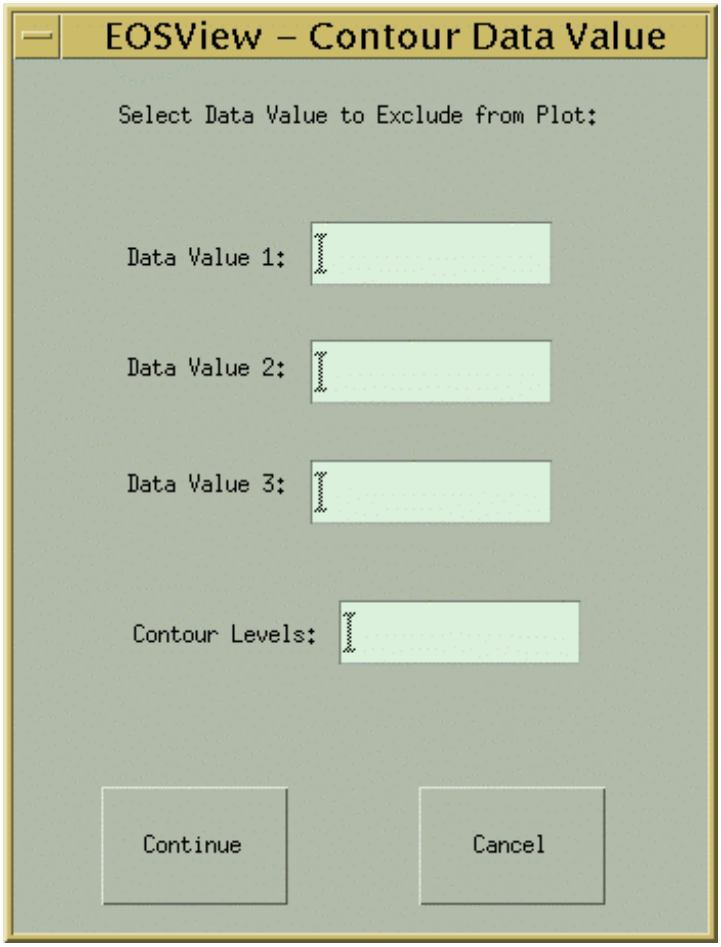


Figure 4.12.5-9. Contour/Surface Data Value Pop-up

The option **Data Value** listed under the **Modify Plot Data** menubar option will cause the Contour/Surface Data Value window to appear (Figure 4.12.5-9). The user can enter up to three values that will not be plotted. The first value should be entered in the Data Value 1 text field, the second value should be entered in the Data Value 2 text field, and the third value should be entered in the Data Value 3 text field. The user can select the number of contour levels desired by entering the number in the Contour Levels text field. Entering data in the Contour Levels text field is optional. The Contour Levels text fields will only appear in the Data Range Pop-up if the plot was a contour plot. Pressing the **Continue** button will cause a new plot to be drawn without the selected data values. Pressing the **Cancel** button closes the window with no further action.

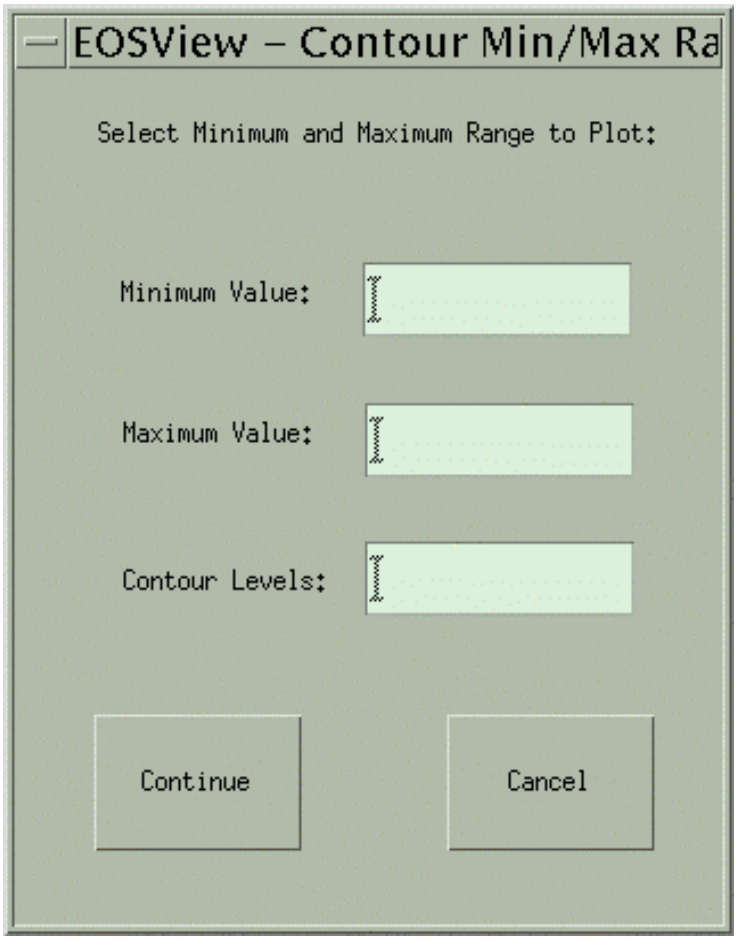


Figure 4.12.5-10. Contour/Surface Min/Max Range Pop-up

The option **Min - Max Range** listed under the **Modify Plot Data** menubar option will cause the Contour/Surface Min/Max Range window to appear (Figure 4.12.5-10). The user can enter a range of values that is desired to be plotted. All values less than the minimum value and greater than the maximum value will not be plotted. The minimum value to be plotted may be entered in the Minimum Value text field. The maximum value to be plotted may be entered in the Maximum Value text field. The user can select the number of contour levels desired by entering the number in the Contour Levels text field. Entering data in the Contour Levels text field is optional. The Contour Levels text fields will only appear in the Data Range Pop-up if the plot was a contour plot. Pressing the **Continue** button will cause a new plot to be drawn using the data range entered. Pressing the **Cancel** button closes the window with no further action.

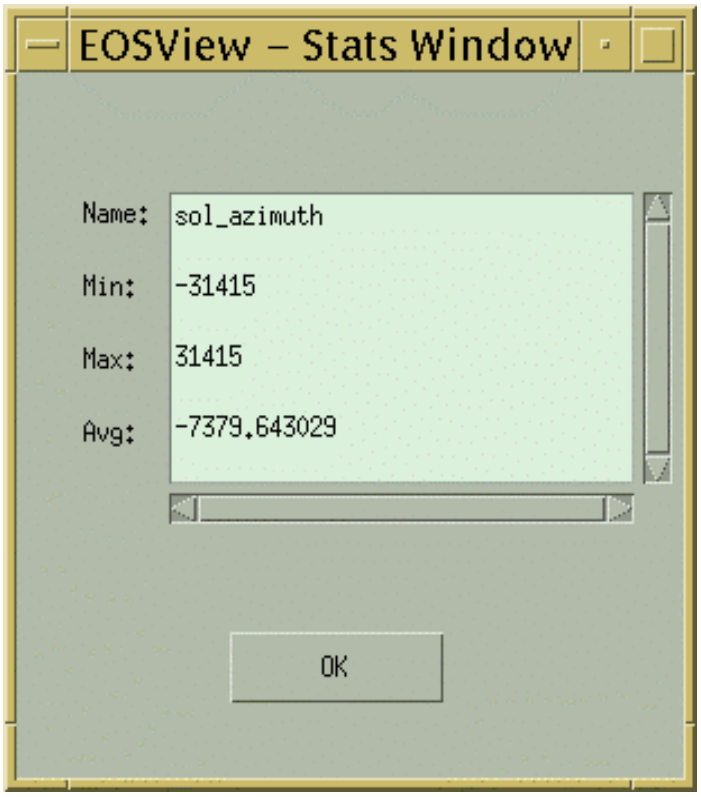


Figure 4.12.5-11. EOSView Stats Pop-up

The EOSView Statistics Pop-up window will list the minimum value, maximum value and average value in a table. For a table created from an SDS, the values will be taken from the entire table. For a table from a Vdata, the values will be taken from each column. No statistics will be calculated for character data. To close this window press the **OK** button.

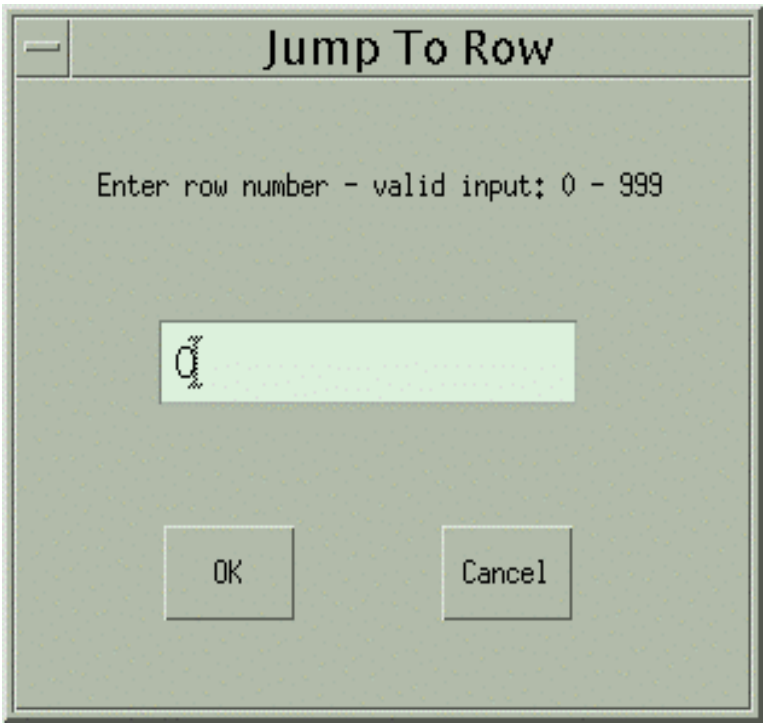


Figure 4.12.5-12. Jump To Dialog

4.12.5.2.5 Jump To Dialog

The user may jump to a specific row number in a table by seleecting the **Jump To…** option. Selecting this option will cause the Jump To Dialog (Figure 4.12.5-12) to appear. This dialog will accept integer input in the range listed in the text field preceded with "Enter row number…" Pressing the "OK" button will cause the table to jump to the selected row number. Pressing the "Cancel" button will close the Jump To Dialog, without performing a save.

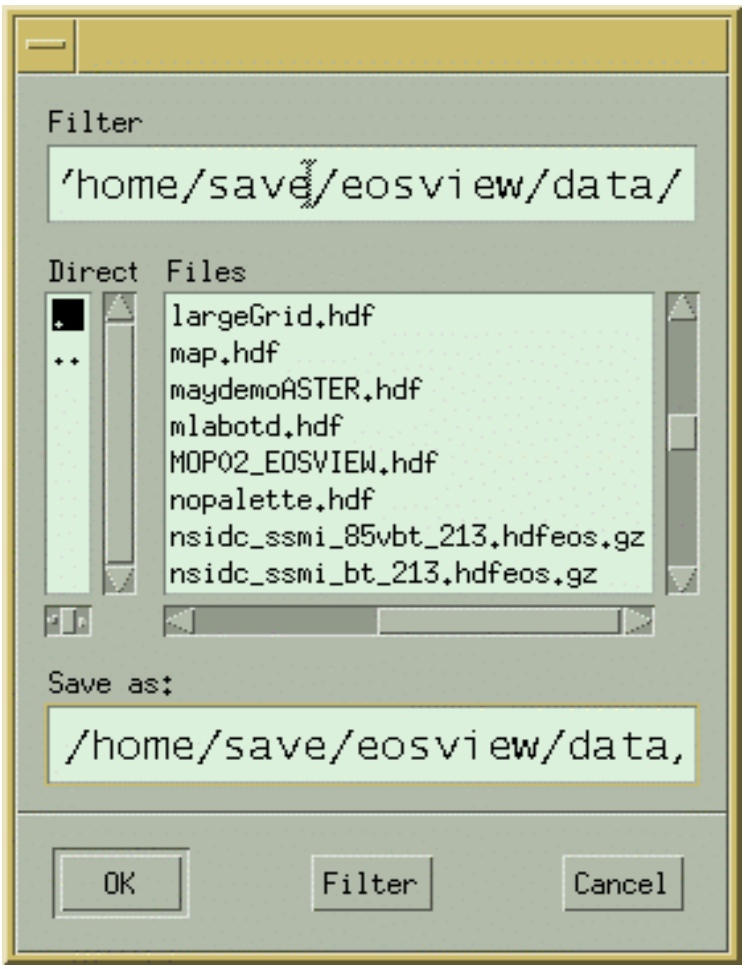


Figure 4.12.5-13. File Save Dialog

4.12.5.2.6 File Save Dialog

The user may save a table in EOSView in one of two ways. The table may be saved in either an ASCII format or it may be saved as a binary file. Selecting the save option will cause the File Save Dialog to appear as shown in Figure 4.12.5-13. The user may then enter the name of the file that is desired to save the table into. EOSView will only save the table to a new file. The EOSView table save mechanism saves to the HDF ASCII Interchange Format (HAIF).

Table 4.12.5-4 describes the File Save fields.

Table 4.12.5-4. EOSView File Save Field Description

Field Name	Data Type	Size	Entry	Description
Filter	system generated (editable)	unlimited	required	displays file selection parameters to filter the directories
Direct	selection	unlimited	required	displays a list of directories
Files	selection	unlimited	required	displays a list of files
Save As	system generated (editable)	unlimited	required	displays the filename selection user may enter to new filename in this field

In addition, the following pushbuttons are provided:

- **OK** – saves to the specified file
- **Filter** – filters through the directories in layers until the desired directory is displayed
- **Cancel** – closes the file save dialog

4.12.5.2.7 Make Image From Table Data

A pseudo-color image can be built from the data displayed in the Table. The image can be created by selecting **File->Make Image** from the menu bar of the EOSView - Table Pop-up (see Figure 4.12.5-4). Selecting this option causes the Min/Max Values window to appear as shown in Figure 4.12.5-14. Table 4.12.5-5 describes the fields of the Min/Max Values Pop-up.

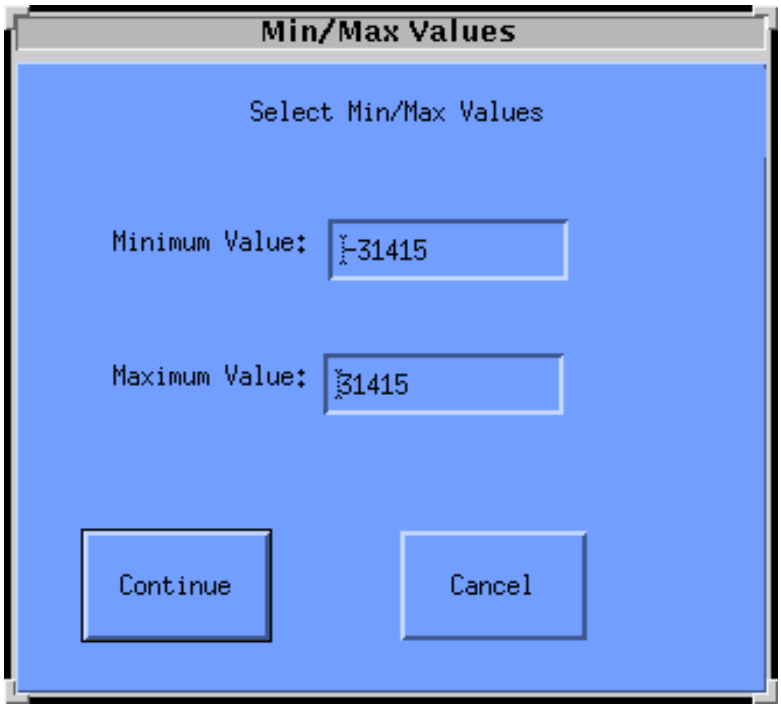


Figure 4.12.5-14. Min/Max Values Pop-up

Table 4.12.5-5. Min/Max Values Window Field Description

Field Name	Data Type	Size	Entry	Description
Minimum Value	integer or float (depending upon original data values)	N/A	required	Min value used for the image (field size is limited by the values that first appear when the window opens)
Maximum Value	Integer or float (depending upon original data values)	N/A	required	Max value used for the image (field size is limited by the values that first appear when the window opens)

From the Min/Max Values Window, the operator has the opportunity to enter the minimum and maximum values used for the image. Pressing the **Continue** button will cause the EOSView - Image Display Pop-up to appear (shown in Figure 4.12.5-15). The operator may cancel all actions by pressing the **Cancel** button.

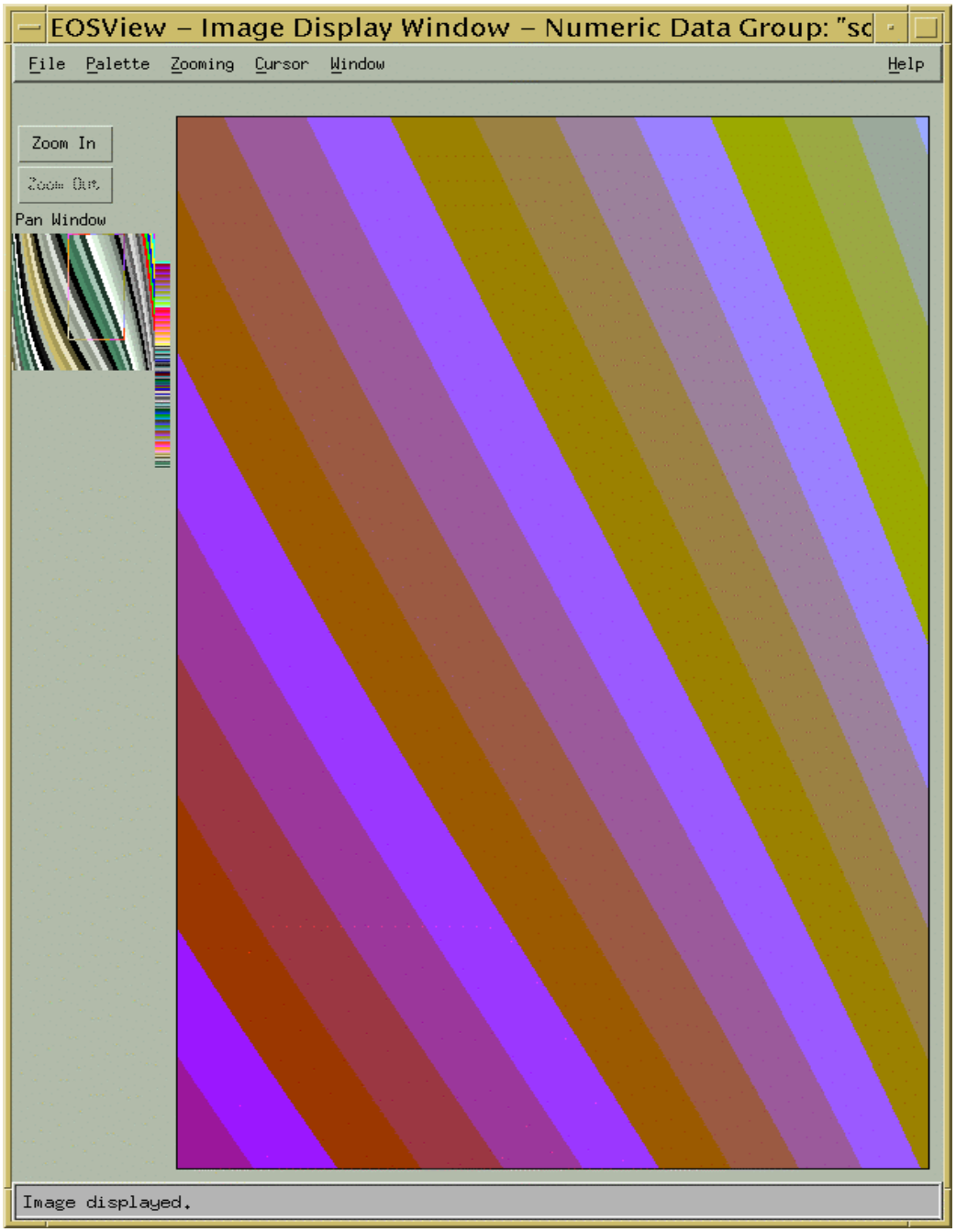


Figure 4.12.5-15. "sol_azimuth" Image Display Pop-up

4.12.5.2.8 Image Display

The Image Display pop-up has the following pulldown menu options**: File, Palette, Zooming, Cursor, Window,** and **Help**.

- The **File->Overlay** option on the menubar is active only if the image has been created from a grid table. The **Overlay** option allows the operator to have lat/lon lines drawn over the image or the operator may have an icon displayed at a point on the grid image. See Section 4.12.5.2.11 which describes the EOSView lat/lon window for symbols and cursor positioning. Selecting the Close option exits the Image Display Window.
- The **Palette** pulldown menu allows the operator to select colors from the following types of palettes for comparison: Default, Greyscale, Antarctica, Rainbow, and World Colors. The first palette option is "Default" which is the palette provided within the HDF file of the image being displayed; if no palette was provided, the default color map is used. The second palette option is "Grayscale" which will be a black and white version of the image being displayed. The next three options are "Antarctica", "Rainbow" and "World Colors." These three palettes are provided as part of EOSView. Selecting one of these three palettes will cause the current image to use that palette. The “Use Entire Palette” option is not functional.
- The **Zooming** pulldown menu allows the operator to select from two zoom methods: Bilinear Interpolation and Nearest Neighbor. Bilinear Interpolation uses interpolation to calculate the probable color during an expansion/compression event; it gives a much smoother image during zooming. The second is Nearest Neighbor which uses sub-sampling or super sampling to determine probable color, e.g., two red pixels are now four red pixels during expansion.
- The **Cursor** pulldown menu allows the operator to set the cursor at a specified position. The first is “X-Y Position” . The operator will be prompted for an X-Y location and the cursor will be positioned at that location. In EOSView, position 0,0 is the lower left corner (see Section 4.12.5.2.12, which describes the EOSView - X-Y Cursor window). If the image has been created from a grid table, the operator may enter a lat/lon position and the cursor will be positioned to that location. See Section 4.12.5.2.11 which describes the “EOSView - lat/lon window (used for symbols and cursor positioning). If the image has been created from a swath table, the operator may position the cursor at the selected scan line. The cursor will be placed at the beginning of the scanline. See Section 4.12.5.2.13 which describes the EOSView Scanline Cursor Window.
- The **Window** option lists in a pull-down menu all windows which are currently open. See Section 4.12.5.2.23 “Window Pulldown Menu.”
- **Help** – see Section 4.12.5.2.25 “Help Pulldown Menu.”

The Image Display also has the following pushbuttons: Zoom In and Zoom Out. It also has a panning feature as described below.

- **Zoom In** and **Zoom Out** pushbuttons -- pressing the Zoom In button will cause the image to be zoomed in and re-drawn in the image window. Pressing the Zoom Out button will cause the image to be zoomed out until it returns to original size. The zoom factor will be displayed in the bottom left corner of the EOSView - Image Display Window on the status bar.
- **Pan Window** -- If the operator has zoomed in on an image, the operator may pan around the image by holding down the left mouse button while the cursor is in the postage stamp size image and moving it around. The cursor will be outlined by a box which indicates the portion of the image being displayed in the full size image window.

The Image Display Pop-up also has cursor tracking capabilities. Placing the cursor on the image and holding the left mouse button will cause the cursor position (in x-y coordinates) to be displayed on the right side of the status bar. If the image has been created from a grid table the cursor position will be displayed in lat/lon coordinates on the right side of the status bar.

4.12.5.2.9 Lat/Lon Symbol Pop-up

The EOSView Lat/Lon Symbol/Cursor pop-up (Figure 4.12.5-16) allows the operator to enter the desired coordinate pair in one of two ways. Degrees-minutes-seconds (DMS radio button) allows the operator to type in the degrees (Deg), minutes (Min), and seconds (Sec) for the latitude and the longitude. The second method is by entering degrees (DEG radio button) in the degrees text fields. In either case the operator may switch between North (N), South (S), and East (E), West (W) by using the list buttons to the right of the text entry fields. For both entry methods, hitting the "Ok" button will cause the cursor to be positioned or a symbol drawn at the desired location. Hitting the "Cancel" button will cancel the operation.

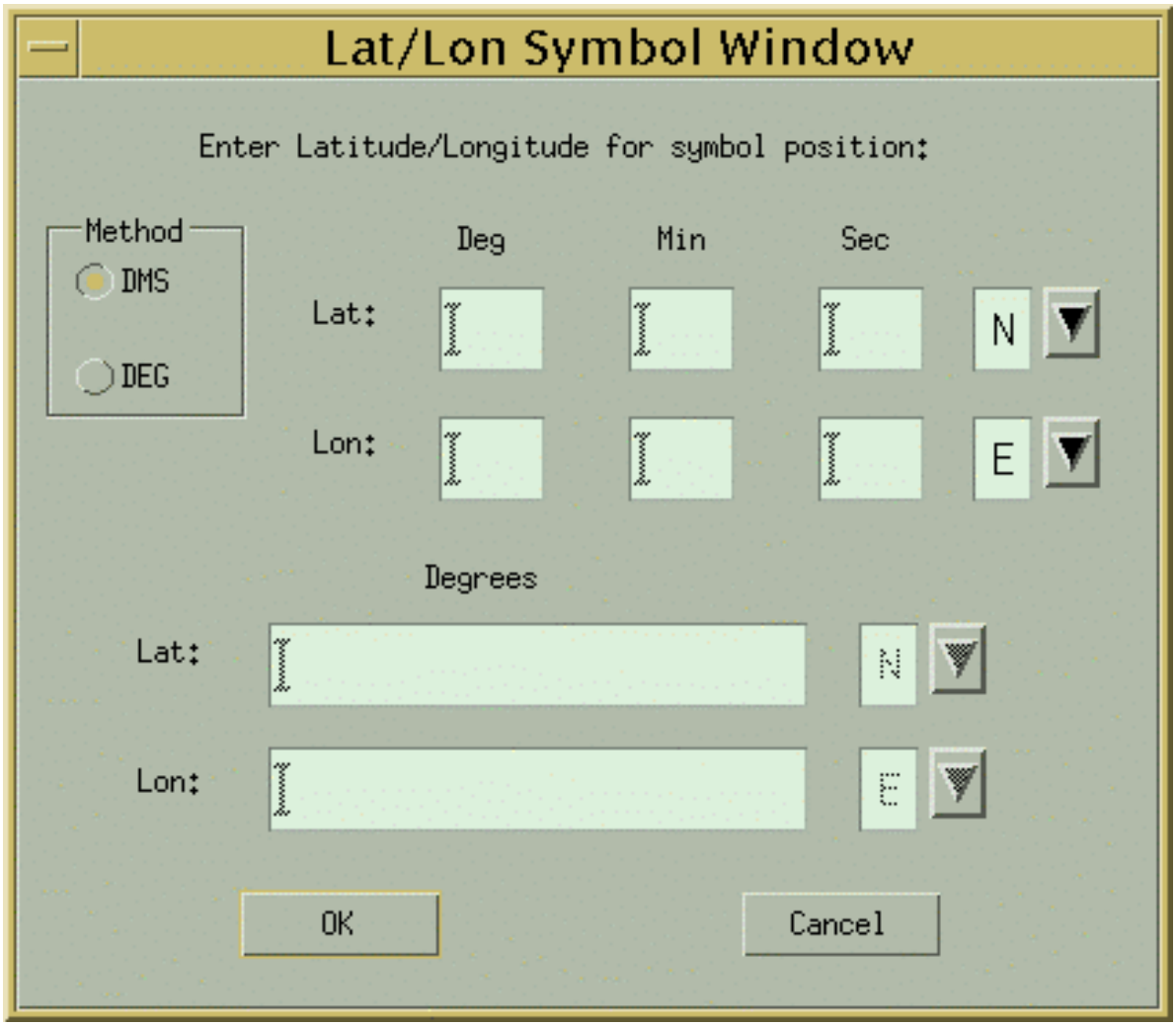


Figure 4.12.5-16. Lat/Lon Symbol Pop-up

Table 4.12.5-6 describes the parameters in the Lat/Lon Symbol Window.

Table 4.12.5-6. Lat/Lon Symbol Window Field Description

Field Name	Data Type	Size	Entry	Description
Lat (DMS)	float	N/A	required	Latitude (if DEG is selected)
Lon (DMS	float	N/A	required	Longitude (if DEG is selected)
Lat/Lon (Deg)	float	N/A	required	Degrees of Latitude/Longitude (if DMS or DEG is selected)
Lat/Lon(Min)	float	N/A	required	Minutes of Latitude/Longitude (if DMS is selected)
Lat/Lon(Sec)	float	N/A	required	Seconds of Latitude/Longitude (if DMS is selected)

4.12.5.2.10 X-Y Cursor Window

Upon selection of **Cursor->Location->x-y position** in the image display window, the XY Cursor window appears as shown in Figure 4.12.5-17. The operator may enter the X-Y coordinates to have the cursor positioned by using the EOSView X-Y Cursor Pop-up. The operator may enter the desired X-Y location in the corresponding X-Y text field. The X-Y limits are placed to the right of the text fields. Hitting the "Ok" button will cause the cursor to be placed at the desired location in the image. Hitting the "Cancel" button will cancel the operation.

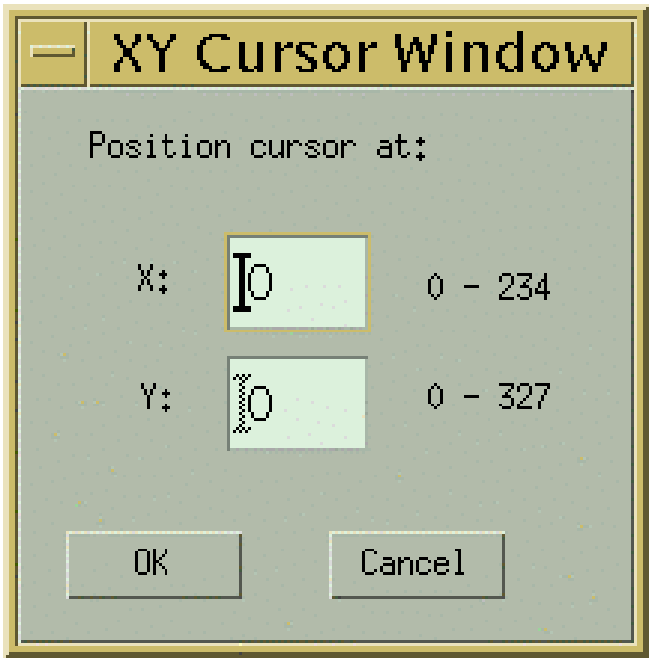


Figure 4.12.5-17. X-Y Cursor Pop-up

Table 4.12.5-7 describes the parameters in the X-Y Cursor Pop-up.

Table 4.12.5-7. X-Y Cursor Window Field Description

Field Name	Data Type	Size	Entry	Description
X:	integer	N/A	required	X horizontal coordinate (minimum and maximum accepted values are listed to the right of the text field)
Y:	integer	N/A	required	Y vertical coordinate (minimum and maximum accepted values are listed to the right of the text field)

4.12.5.2.11 ScanLine Cursor Window

If the image was created from a Swath table the operator may position the cursor to the beginning of the scanline by using the EOSView - ScanLine Cursor Pop-up (Figure 4.12.5-18). Moving the slider left and right will cause the scanline value below the slider to decrease and increase, respectively. Once the desired scanline is achieved, hitting the "Ok" button will cause the cursor to be placed at the beginning of the scanline. Hitting the "Cancel" button will cancel the operation.

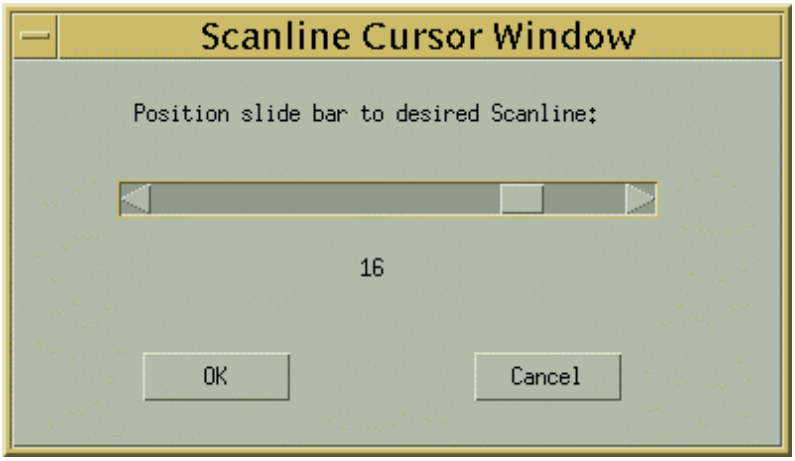


Figure 4.12.5-18. Scanline Cursor Pop-up

4.12.5.2.12 Vdata

In this example, the packVdata1.hdf file was selected from the File Selection dialog, bringing up the Vdata File Contents Pop-up (see Figure 4.12.5-19).

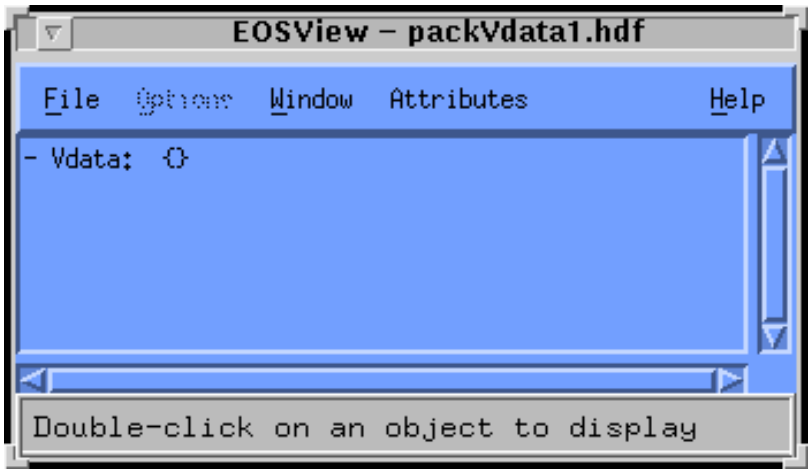


Figure 4.12.5-19. File Contents Pop-up Containing Vdata

Double-clicking on the Vdata entry brings up the "EOSView - VData Field Select" pop-up (shown in Figure 4.12.5-20). This window lists all the field names in the selected Vdata. The operator may select one or more fields for display. If the fields contain multiple values for a field then that field will appear in its own table.

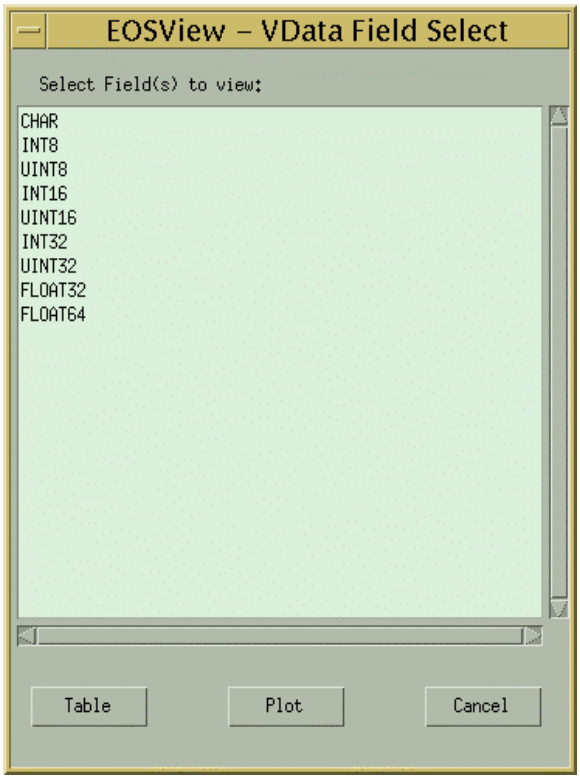
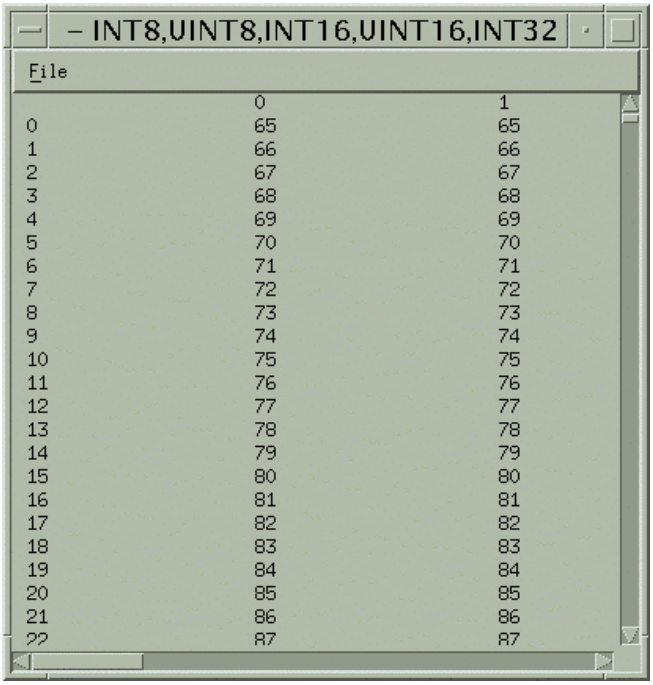


Figure 4.12.5-20. EOSView - Vdata Field Select Pop-up

Table button - Once the operator has selected the fields desired, pressing the table button will cause the Vdata to appear in a table.



	0	1
0	65	65
1	66	66
2	67	67
3	68	68
4	69	69
5	70	70
6	71	71
7	72	72
8	73	73
9	74	74
10	75	75
11	76	76
12	77	77
13	78	78
14	79	79
15	80	80
16	81	81
17	82	82
18	83	83
19	84	84
20	85	85
21	86	86
22	87	87

Figure 4.12.5-21. Table containing Vdata field Pop-up

Plot button - The operator may select one or two non-character data fields and have the data plotted by pressing the plot button (see Figure 4.12.5-22).
Cancel button - Cancels all actions

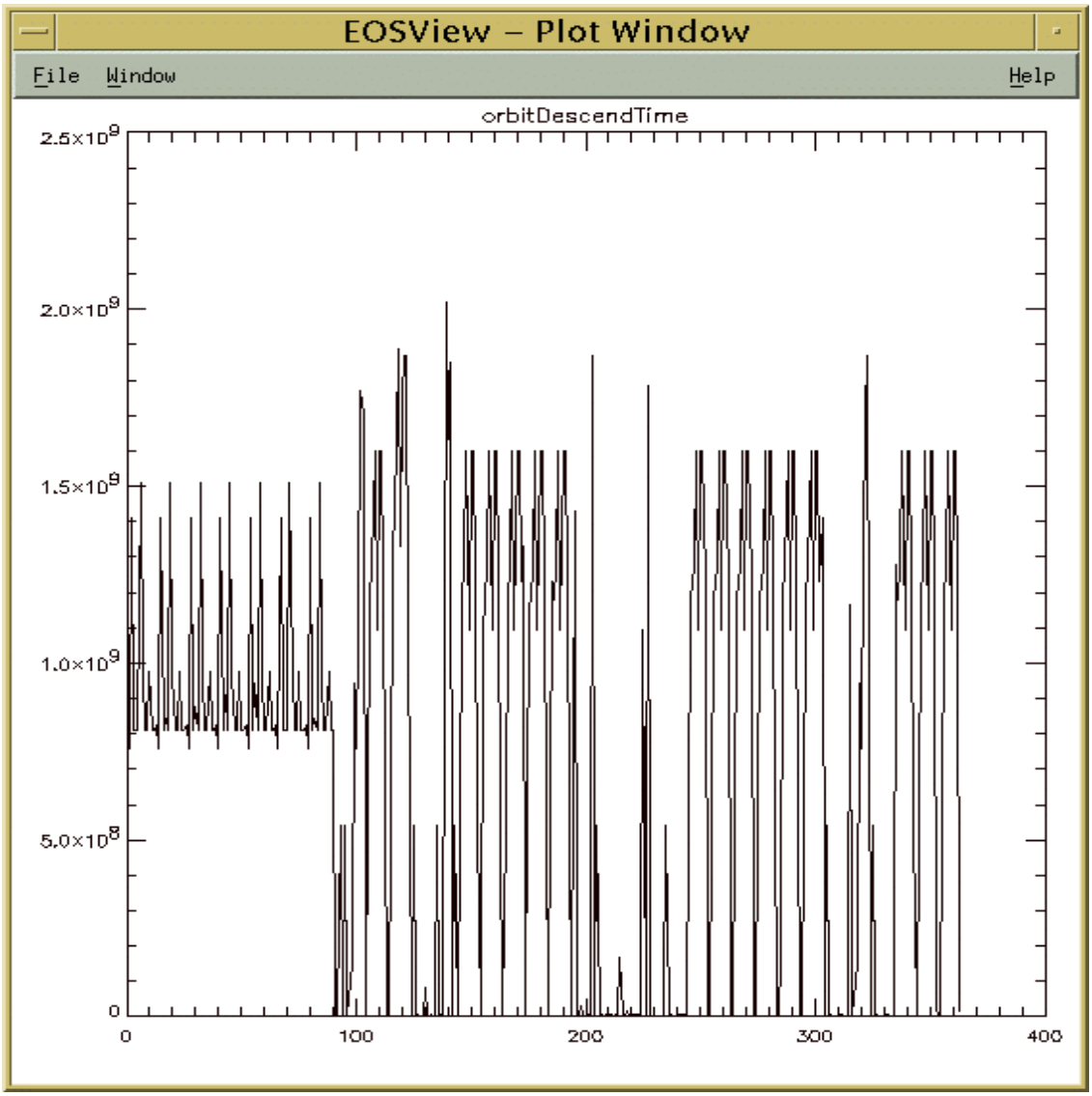


Figure 4.12.5-22. Plot Pop-up

The Plot Pop-up created from the Vdata Field Select window contains the following menu options:

- The **File** options allows the user to close the window by selecting **Close**.
- The **Window** option lists in a pull-down menu all windows which are currently open. See Section 4.12.5.2.23 "Window Pulldown Menu."

4.12.5.2.13 VGroup

If the object in the File Contents Display Window is a **Vgroup,** the contents of the VGroup will be added to the list and the list will be re-drawn in the list box. Clicking on a VGroup that has

already had the contents expanded will cause the contents of the VGroup to disappear and the list will be re-drawn in the list box. Figure 4.12.5-23 shows several expanded an unexpanded Vgroup categories.

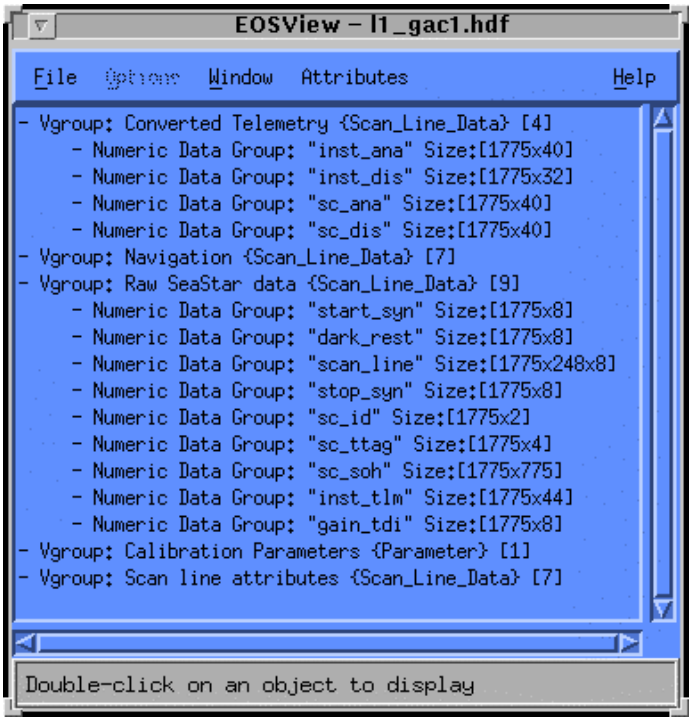


Figure 4.12.5-23. File Contents Pop-up containing Vgroups

4.12.5.2.14 Raster Image

In this example, the alltovs.hdf file was selected from the File Selection dialog, bringing up the File Contents Display Window shown in Figure 4.12.5-24.

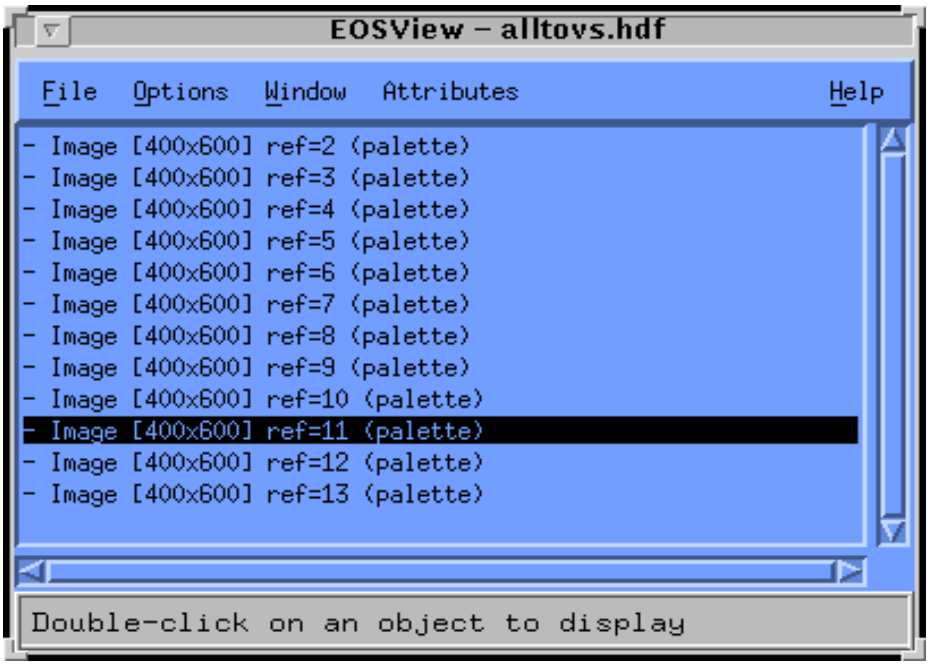


Figure 4.12.5-24. File Contents Pop-up containing Raster Images

Clicking on a Raster Image Group will cause the image to be drawn in an EOSView - Image Display Pop-up (see Figure 4.12.5-25).

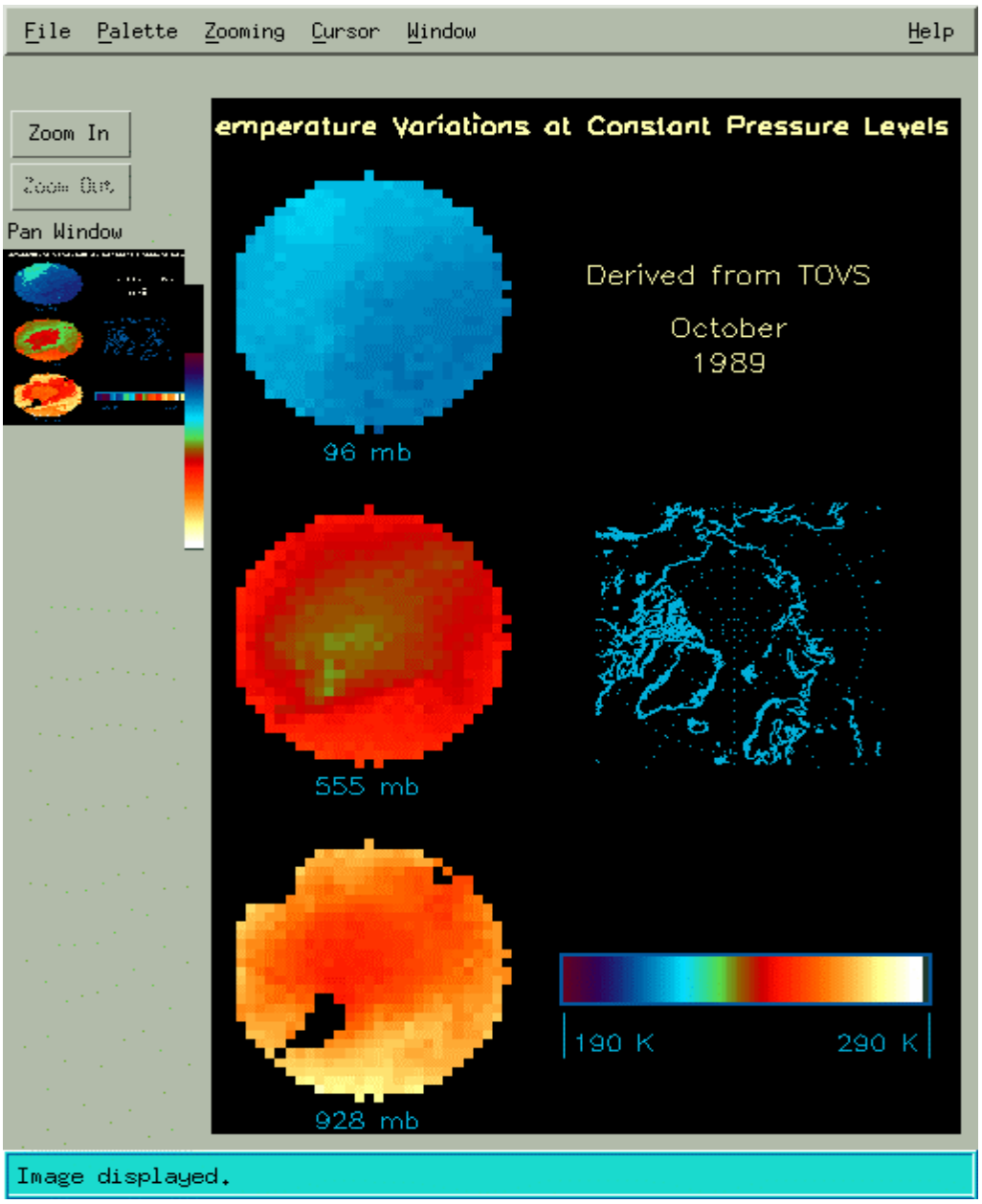


Figure 4.12.5-25. Raster Image Pop-up

A Raster image is different than the pseudo-color image shown in Section 4.12.5.2.9 since this image is not drawn from data. It is simply a visual depiction of an object. The menus and pushbuttons for this window are the same as those described for the pseudo-color display. See Section 4.12.5.2.10 for a description of the Image Display Window.

4.12.5.2.15 EOSView Grid Select GUI

In this example, the GridFile.hdf was selected from the File Selection dialog, bringing up the GridFile.hdf File Contents Display shown in Figure 4.12.5-26.

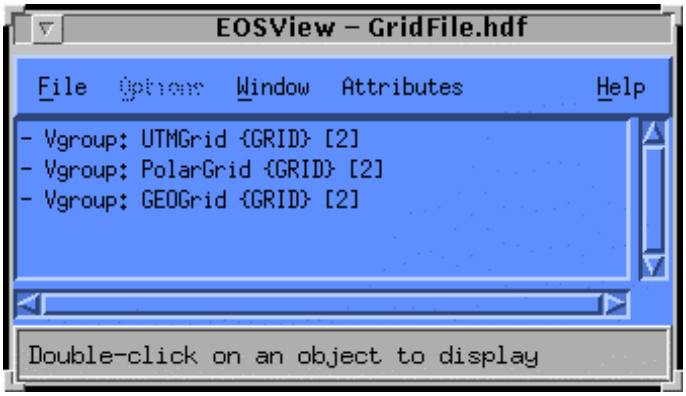


Figure 4.12.5-26. Grid File Contents Display Pop-up

Double-clicking on a selection (in this case, the object *Vgroup: UTMGrid {GRID} [2]* was selected) brings up the Grid Select Pop-up shown in Figure 4.12.5-27.

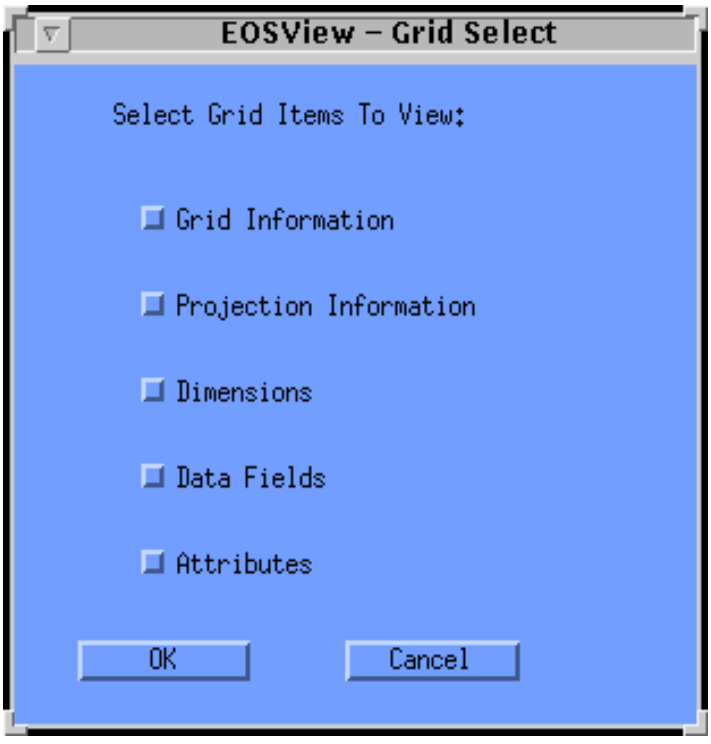


Figure 4.12.5-27. Grid Select Pop-up

All of the following options are available for selection: Grid Information, Projection Information, Dimensions, Data Fields, and Attributes. Selecting **OK** will bring up windows for all the items selected. Clicking on **Cancel** will return the operator to File Contents Window. Assuming that all the items have been selected, the following windows will appear:

Grid Information Dialog

To view a summary of a selected Grid object, click on the Grid Information checkbox. The Grid Information dialog pop-up (shown in Figure 4.12.5-28) displays information about the selected grid such as X-Dimension value, Y-Dimension value, Upper Left Point values, and Lower Right Point values.

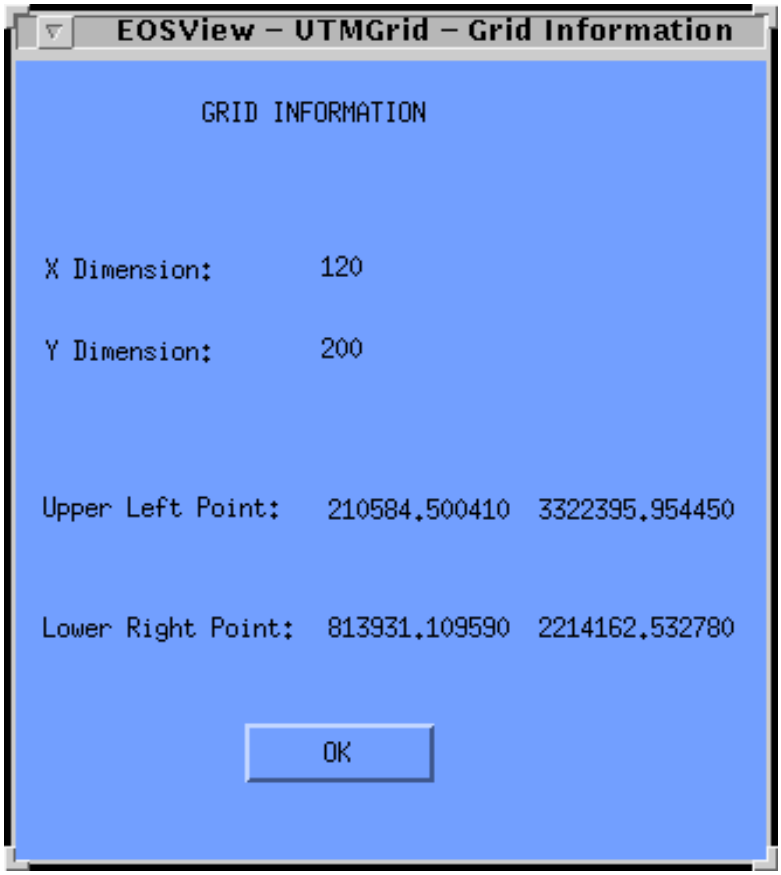


Figure 4.12.5-28. Grid Information Dialog Pop-up

This window can be closed by pressing the **OK** button.

Projection Information

To view the Projection Information of the selected Grid object, click on the Projection Information checkbox in the EOSView - Grid Select window and press the **OK** button. This will cause the EOSView - Grid Projection Information pop-up shown in Figure 4.12.5-29 to appear.

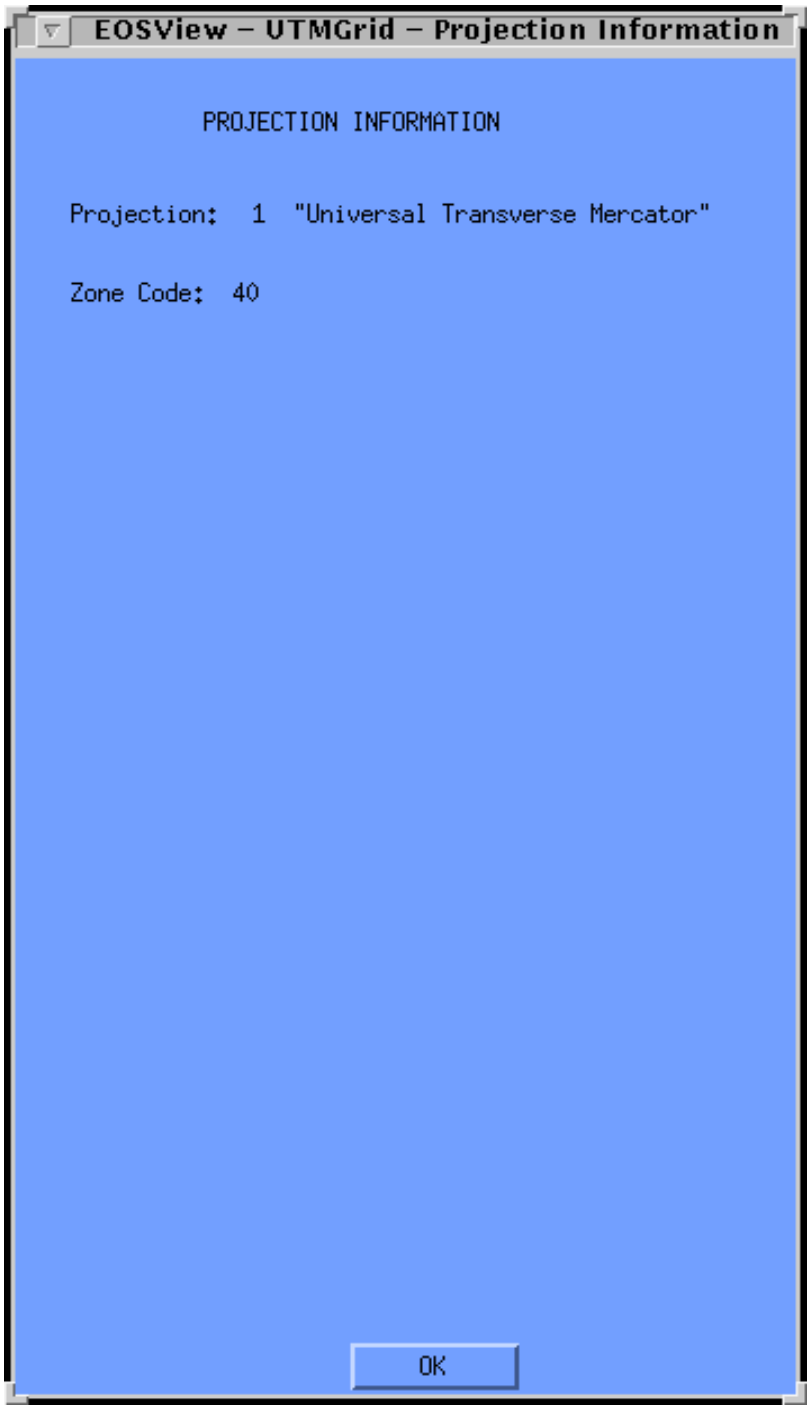


Figure 4.12.5-29. Projection Information Pop-up

The **Projection Information** pop-up displays information about the projection of the selected grid in a dialog box. The first item displayed is the Projection itself. If the projection is Universal

Transverse Mercator, the next item is displayed in the Zone Code. For any other projection the next items displayed are the thirteen (13) Projection Parameters. This window can be closed by pressing the **OK** button.

Dimensions

To view the dimensions of the selected Grid object, click on the Dimensions checkbox in the EOSView - Grid Select pop-up and press the **OK** button. This will cause the EOSView - Grid Dimensions window (shown in Figure 4.12.5-30) to appear.

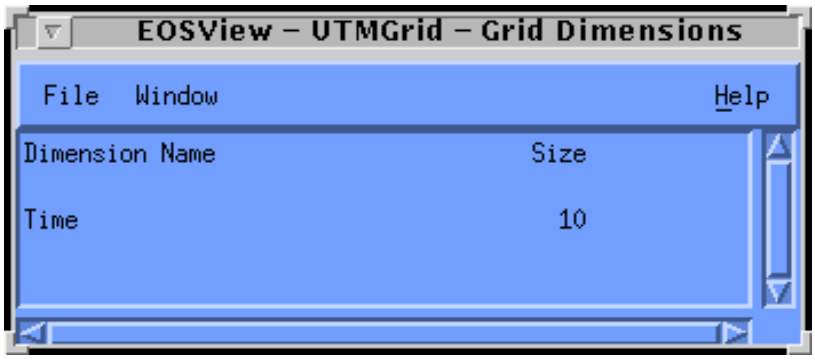


Figure 4.12.5-30. Grid Dimensions Pop-up

This window lists Dimension Names and Sizes for the selected Grid in table form in a scrollable window. The items listed are non-selectable and are for display/verification purposes only. See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

Data Fields

To view the Data Fields of the selected Grid object simply click on the Data Fields checkbox in the EOSView - Grid Select pop-up and press the **OK** button. This will cause the EOSView - Grid Data Fields window (shown in Figure 4.12.5-30) to appear. See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

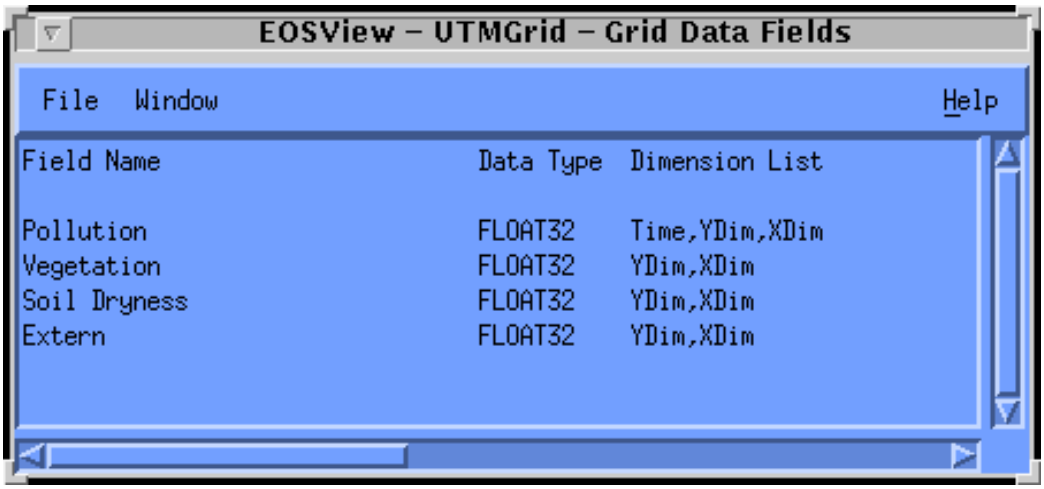


Figure 4.12.5-31. Grid Data Fields Pop-up

To view a slice of the Grid Geolocation/Data Field data, move the pointer over the object and double click the left mouse button. This will cause the EOSView - Start/Stride/Edge pop-up (shown in Figure 4.12.5-32) to appear.

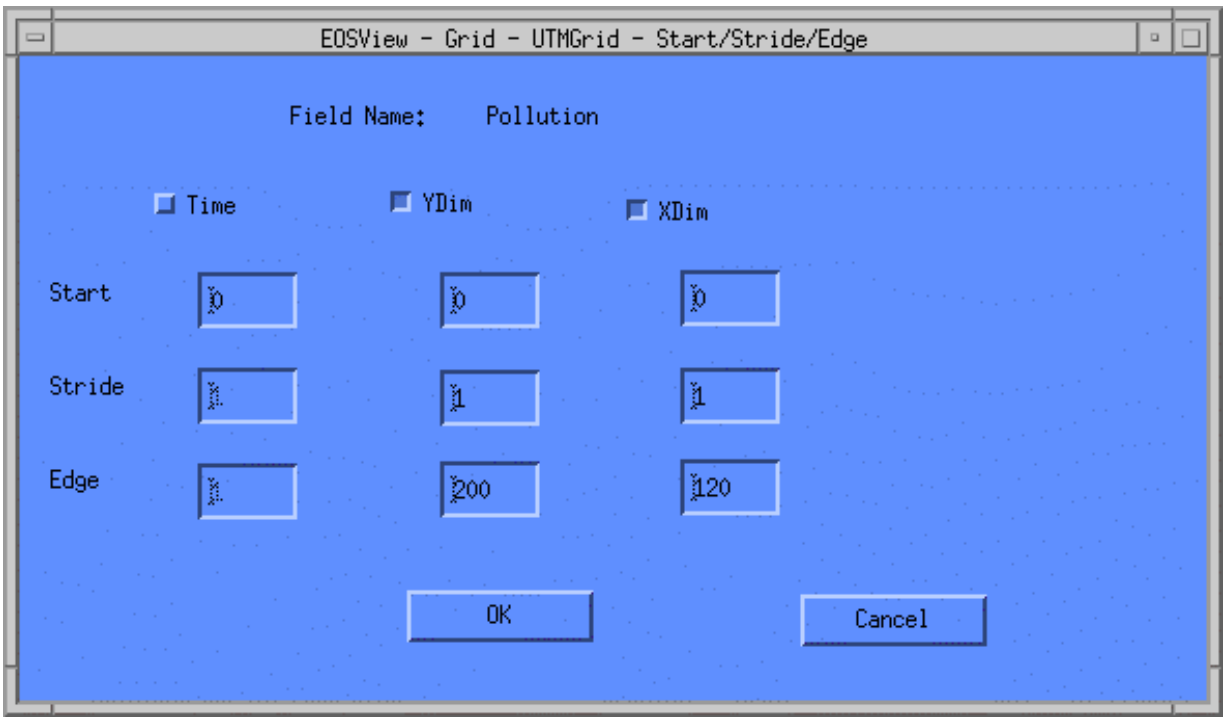


Figure 4.12.5-32. Start/Stride/Edge Pop-up

Table 4.12.5-8 describes the **Start/Stride/Edge** pop-up fields.

Table 4.12.5-8. Start/Stride/Edge Pop-up Field Description

Field Name	Data Type	Size	Entry	Description
Start	Integer	N/A	required	Start for grid geolocation/data field data
Stride	Integer	N/A	required	Stride for grid geolocation/data field data
Edge	Integer	N/A	required	Edge for grid geolocation/data field data

This pop-up displays the Start, Stride, and Edge values for each dimension (there may be up to eight). The start value for each dimension may be edited but the stride and edge values may only be edited for the selected dimensions. This is a way of subsampling the data desired. A dimension may be selected by clicking on the check box next to the dimension name. A maximum of two dimensions may be selected. Once the operator has entered the desired data the **OK** button may be pressed and the selected dimension data will be displayed in the EOSView - Grid Table. For more information on a Table, building a pseudo-color image, and the Min/Max Values Pop-up, see Section 4.12.5.2.9. The operator may cancel all actions by pressing the **Cancel** button.

Note that if an input error occurs, a warning dialog (Figure 4.12.5-33) will appear, displaying the dimension name that is in error and a size total. The operator must meet the criteria in the formula displayed in the warning dialog. Click OK to return to the Start/Stride/Edge Window to re-enter the correct values.

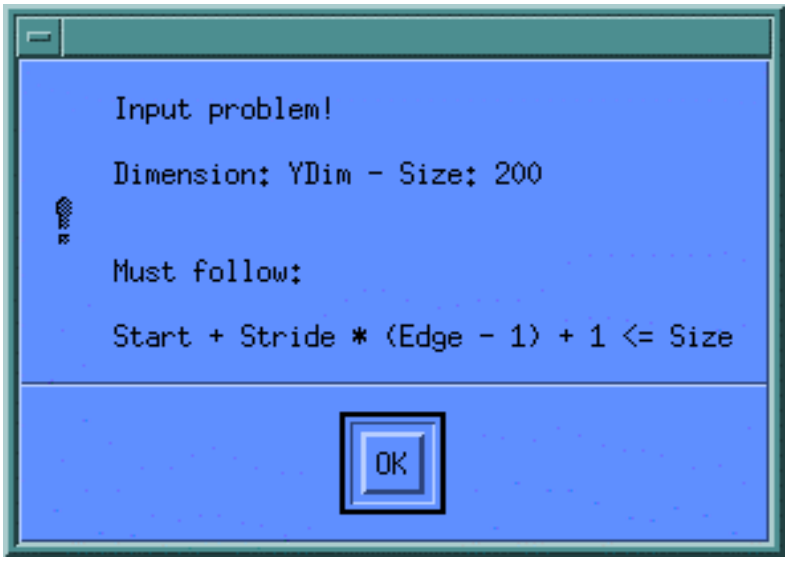


Figure 4.12.5-33. Warning Dialog

Attributes

Clicking on the Attributes checkbox in the EOSView Grid Select Pop-up brings up the Attributes Text Display shown in Figure 4.12.5-34.

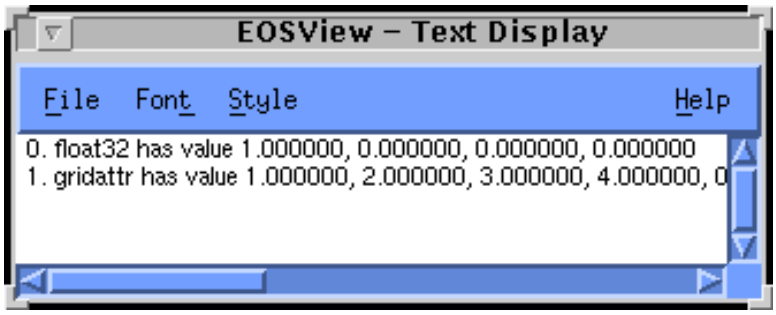


Figure 4.12.5-34. Attributes Text Display Pop-up

This display shows the attributes associated with a particular dataset. The text display can be closed from the **File** pulldown menu, the text can be modified using the **Font** and **Style** pulldown menus, and additional help can be obtained from the **Help** pulldown menu (see Section 4.12.5.2.25 "Help Pulldown Menu.")

4.12.5.2.16 EOSView Swath Select

In this example, the SwathFile.hdf file was selected from the File Selection dialog, bringing up the File Contents Pop-up shown in Figure 4.12.5-35.

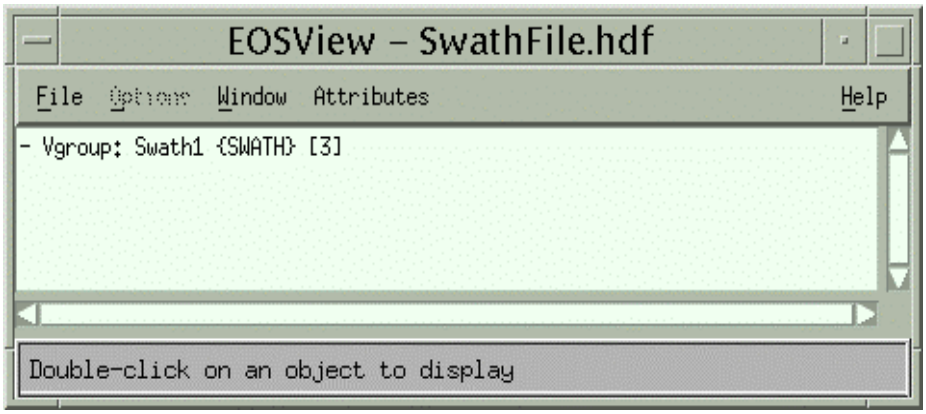


Figure 4.12.5-35. SwathFile File Select Pop-up

Double clicking on an item in the File Select window brings up the Swath Select Pop-up shown in Figure 4.12.5-36.

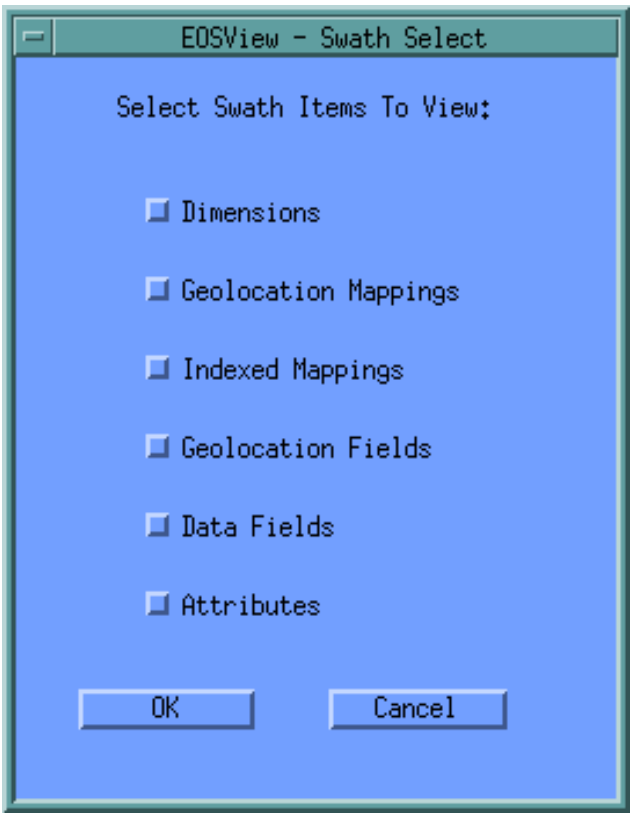


Figure 4.12.5-36. Swath Selection Pop-up

As many options as desired can be selected from the following list: Dimensions, Geolocation Mappings, Indexed Mappings, Geolocation Fields, Data Fields, and Attributes. Selecting OK will bring up windows for all the items selected. Clicking on Cancel will close the Swath Selection Pop-up with no action being taken. Assuming that all the items have been selected, the following windows will appear.

Dimensions

To view the dimensions of the selected Swath object, click on the Dimensions checkbox in the EOSView - Swath Select pop-up and press the OK button. This will cause the EOSView - Swath Dimensions pop-up to appear. This window lists the Dimension Names and Sizes for the selected Swath in a table form in a scrollable window. The items listed are non-selectable and are for display/verification purposes only. This window is similar to the Grid file dimensions window described in Section 4.12.5.2.17 “EOSView Grid Select GUI” (see Dimensions).

Geolocation Mappings

To view the Geolocation Mappings of the selected Swath object, click on the Geolocation Mappings checkbox in the EOSView - Swath Select pop-up and press the OK button. This will cause the EOSView - Swath Geolocation Mappings window (shown in Figure 4.12.5-37) to appear.

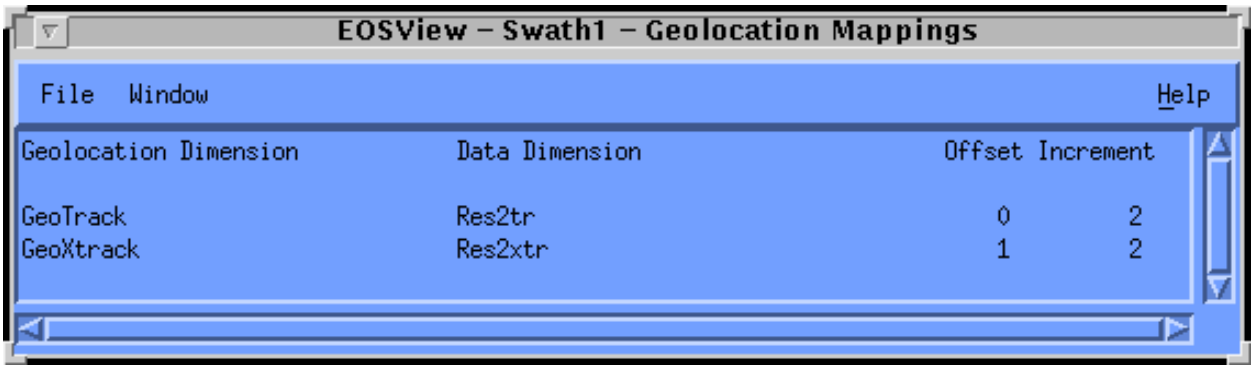


Figure 4.12.5-37. Swath Geolocation Mappings Pop-up

This window lists the Geolocation Dimensions, Data Dimensions, Offsets, and Increments for the selected Swath in a table form in a scrollable window. The items listed are non-selectable and are for display/verification purposes only. See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

Indexed Mappings

To view the Indexed Mappings of the selected Swath object, click on the Indexed Mappings checkbox in the EOSView - Swath Select pop-up and press the OK button. This will cause the EOSView - Swath Indexed Mappings pop-up (shown in Figure 4.12.5-38) to appear.

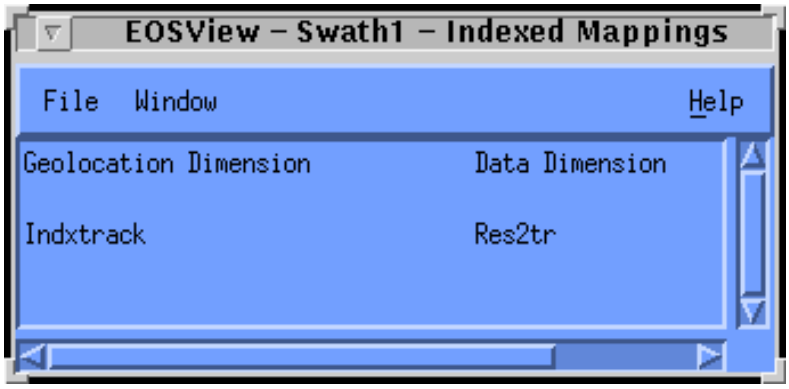


Figure 4.12.5-38. Swath Indexed Mappings Pop-up

Viewing the size of the mapping may be performed by moving the pointer over the object and double clicking the left mouse button. This will cause the EOSView - Indexed Mapping Sizes pop-up (shown in Figure 4.12.5-39) to appear. See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

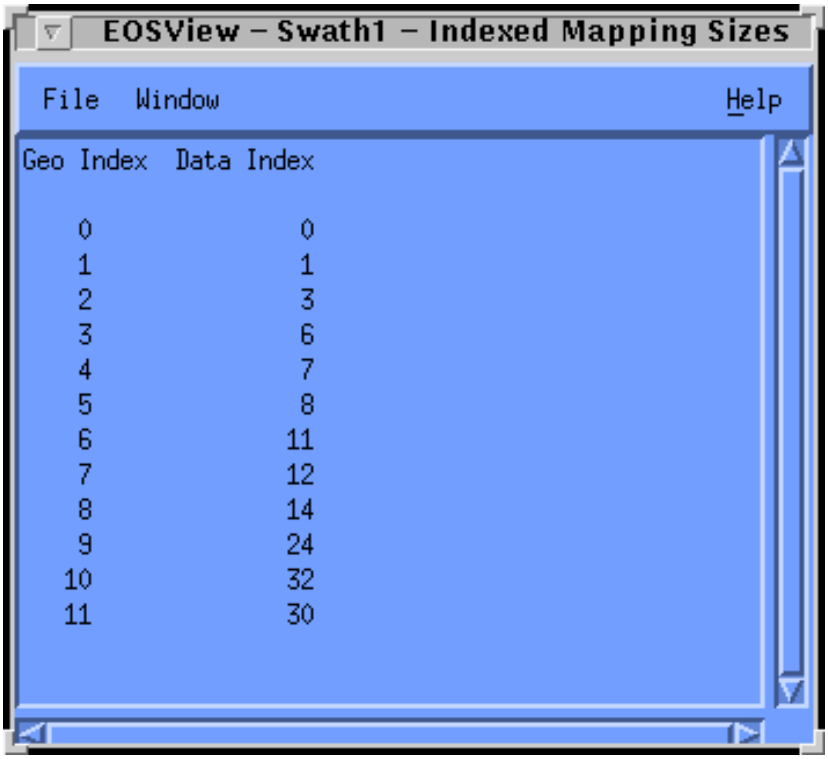


Figure 4.12.5-39. Index Mapping Sizes Pop-up

This window lists the Geolocation Indices and Data Indices for the selected Swath in a table form in a scrollable window. The items listed are non-selectable and are for display/verification purposes only. The window can be closed by selecting “Close” from the File menu. See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

Geolocation Fields

To view the Geolocation Fields of the selected Swath object, click on the Geolocation Fields checkbox in the EOSView - Swath Select pop-up and press the OK button. This will cause the EOSView - Swath Geolocation Fields window (shown in Figure 4.12.5-40) to appear.

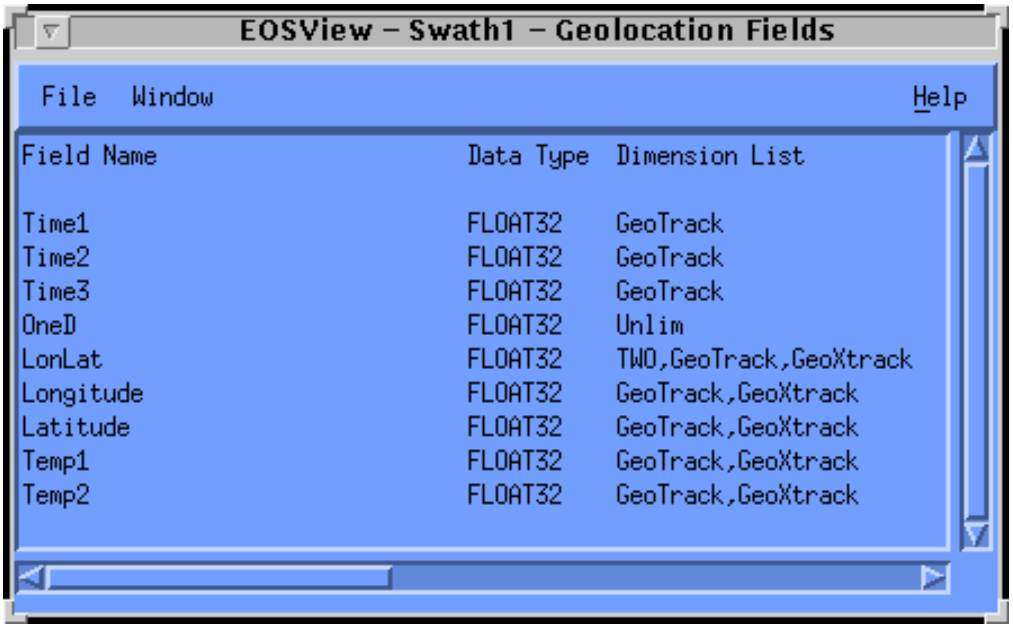


Figure 4.12.5-40. Swath Geolocation Fields Pop-up

Selecting a Swath Geolocation to view a slice of the data may be performed by moving the pointer over the object and double clicking the left mouse button. This will cause the EOSView - Start/Stride/Edge pop-up to appear. This window lists the Start, Stride, and Edge values for each dimension listed. This window is similar to the Grid file Start/Stride/Edge window described in Section 4.12.5.2.17 "EOSView Grid Select GUI" (see Data Fields). See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

Data Fields

To view the Data Fields of the selected Swath object, click on the Data Fields checkbox in the EOSView - Swath Select pop-up and press the OK button. This will cause the EOSView - Swath Data Fields pop-up to appear. This window is similar to the Grid file data fields window described in Section 4.12.5.2.17 "EOSView Grid Select GUI" (see Data Fields). See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

Attributes

To view the attributes of the selected Swath object, click on the Attributes checkbox in the EOSView - Swath Select window and press the OK button. This window is similar to the Grid file attributes pop-up described in Section 4.12.5.2.17 "EOSView Grid Select GUI " (see Attributes).

4.12.5.2.17 Point Files

In this example, selecting PointFile.hdf from the File Select dialog brings up the File Contents pop-up shown in Figure 4.12.5-41.

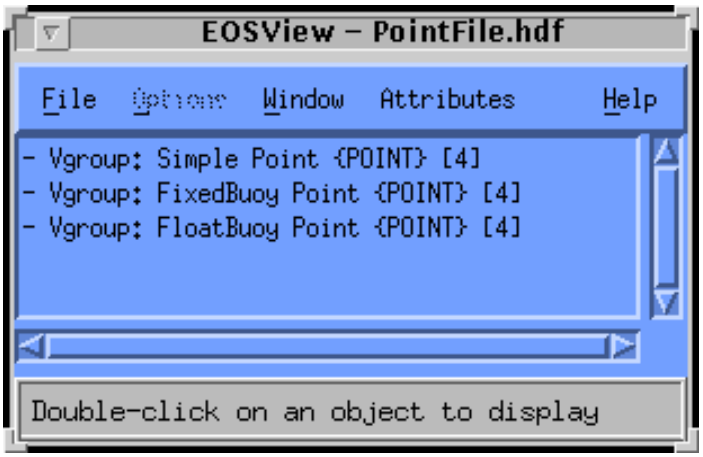


Figure 4.12.5-41. PointFile File Contents Pop-up

Double-clicking on an item in the PointFile pop-up (in this example, the *Vgroup: FloatBuoy Point {POINT} [4]* object is selected) opens the Point Select Pop-up shown in Figure 4.12.5-42.

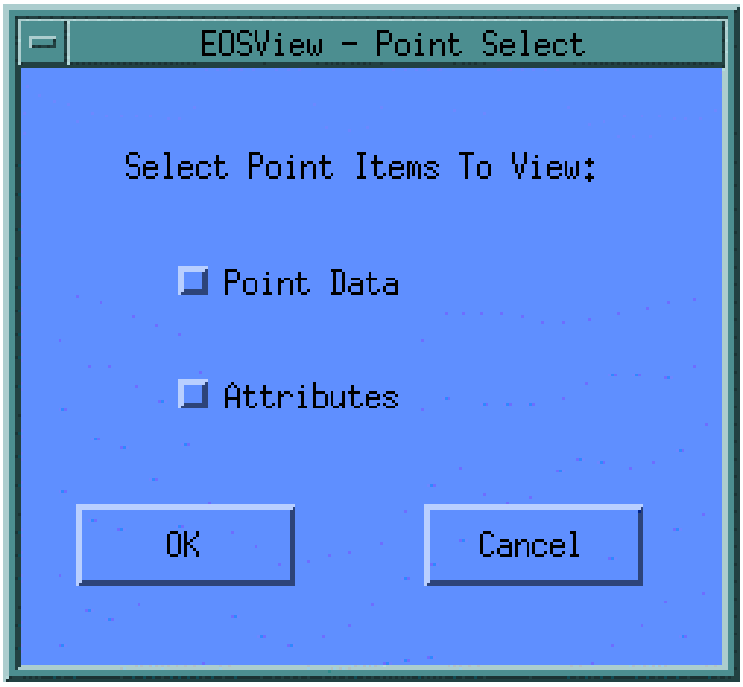


Figure 4.12.5-42. Point Select Pop-up

Either Point Data, Attributes or both options can be selected. Clicking on OK will open the corresponding windows for the options selected. Clicking on Cancel will close the Point Select

Pop-up with no action being taken. Assuming both items have been selected, the windows as described below will appear.

Point Data

To view the Point Data of the selected Point object, simply click on the Point Data checkbox in the EOSView - Point Select window and press the OK button. This will cause the EOSView-Point Level Info pop-up to appear as shown in Figure 4.12.5-43.

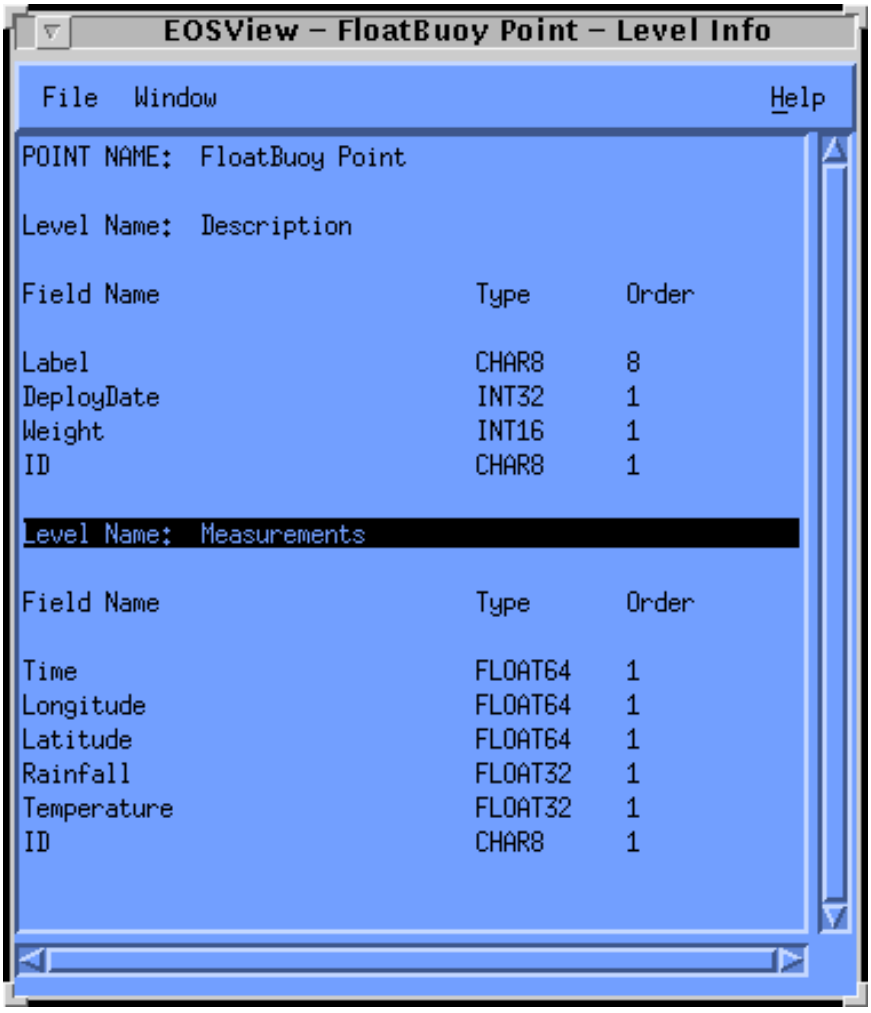


Figure 4.12.5-43. Point File Level Information Pop-up

Double-clicking on any **Level Name** will bring up the Vdata field select pop-up, shown in Figure 4.12.5-20. The operation of the Vdata field select pop-up is described in Section 4.12.5.2.14. See Section 4.12.5.2.26 for a description of saving the contents of the window to an ASCII file.

Selecting a field or multiple fields will bring up the table window shown in Figure 4.12.5-44.

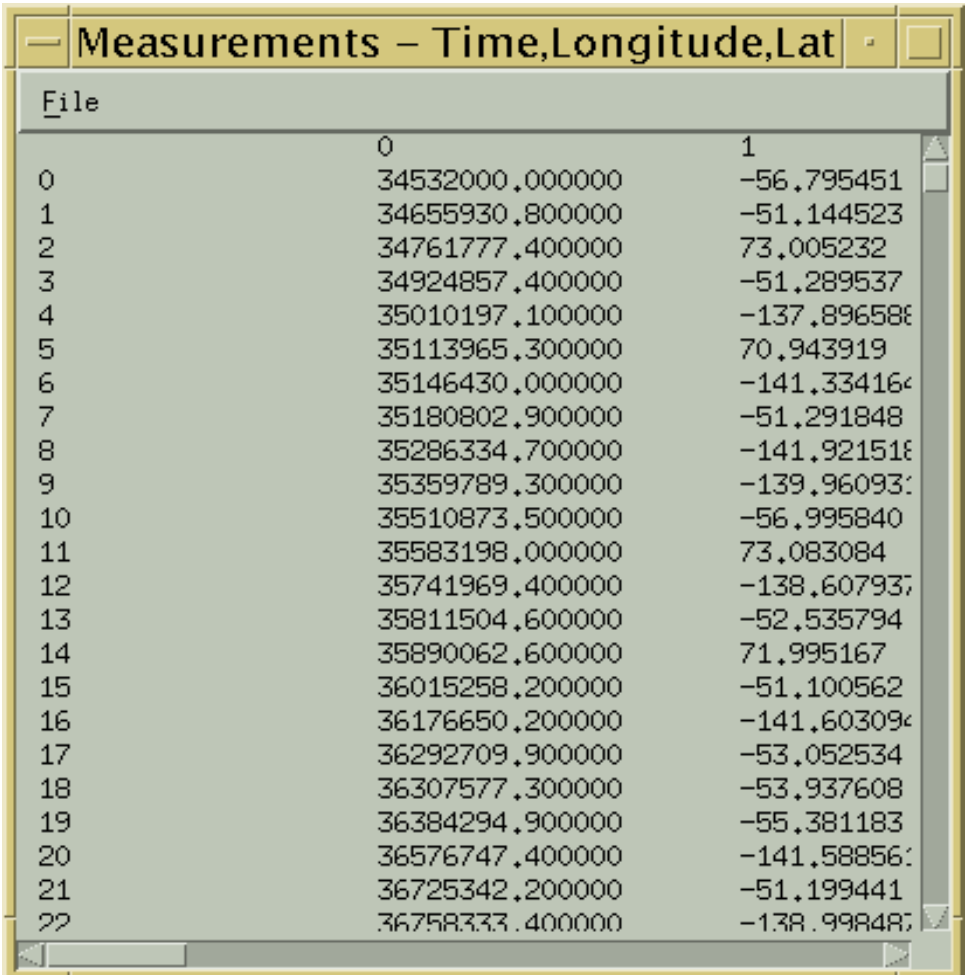


Figure 4.12.5-44. Vdata Table Pop-up

The data in this table can be saved by selecting Save from the File pulldown menu (see Section 4.12.5.2.14 for a sample of a Plot Window). The statistics of this table may be viewed by selecting Statistics from the File pulldown menu. To close this window select Close from the file pulldown menu.

Attributes

To view the attributes of the selected Point Select object, click on the Attributes checkbox in the EOSView - Point Select window and press the OK button. This window is similar to the Grid file attributes pop-up described in Section 4.12.5.2.17 “EOSView Grid Select GUI “ (see Attributes).

4.12.5.2.18 Pulldown Menus

The File Contents Displays all have a common pulldown menu structure with the following options: **File, Options, Window, Attributes,** and **Help**. These are described in the following sections.

4.12.5.2.19 File Pulldown Menu

The **File** pulldown menu consists of the following options: File Info, Save, and Close. The Close pulldown menu will close the File Contents Display Pop-up and all windows derived from the window. The Save feature is described in Section 4.12.5.2.26 “Save Pulldown Menu.” The File Info pulldown menu selection allows the operator to bring up information on the number of Raster Image groups, scientific data groups, palettes, Vgroups, LoneVdata, and annotations in the form of a File Information dialog as shown in Figure 4.12.5-45.

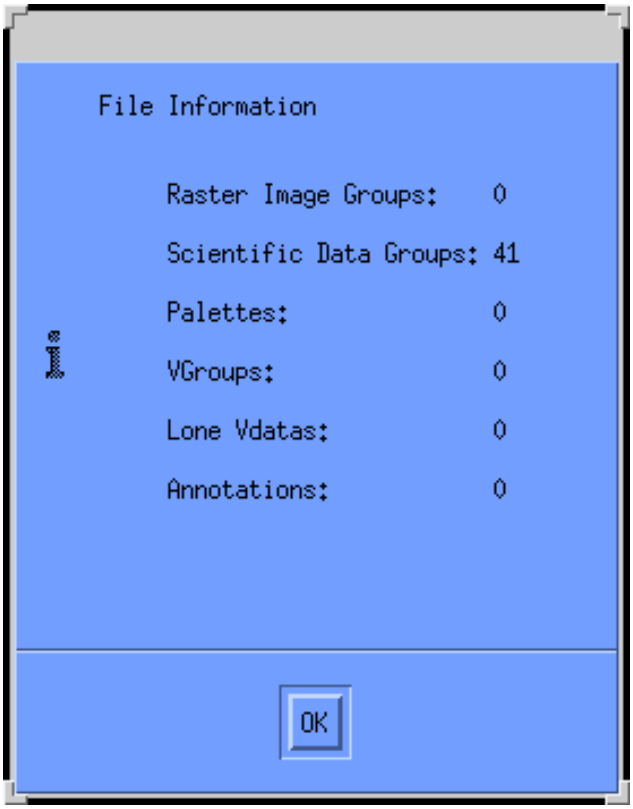


Figure 4.12.5-45. File Information Dialog

Clicking the **OK** button closes the File Information Dialog.

4.12.5.2.22 Options Pulldown Menu

The Options pulldown menu and its **Animate images** selection becomes sensitized when the selected file contains multiple Raster Image Groups. This will cause all the images to be lined up and displayed in order in an EOSView - Animation Window. The Animation Window is depicted in Figure 4.12.5-46, with different frames of an actual animation shown (skull.hdf file).

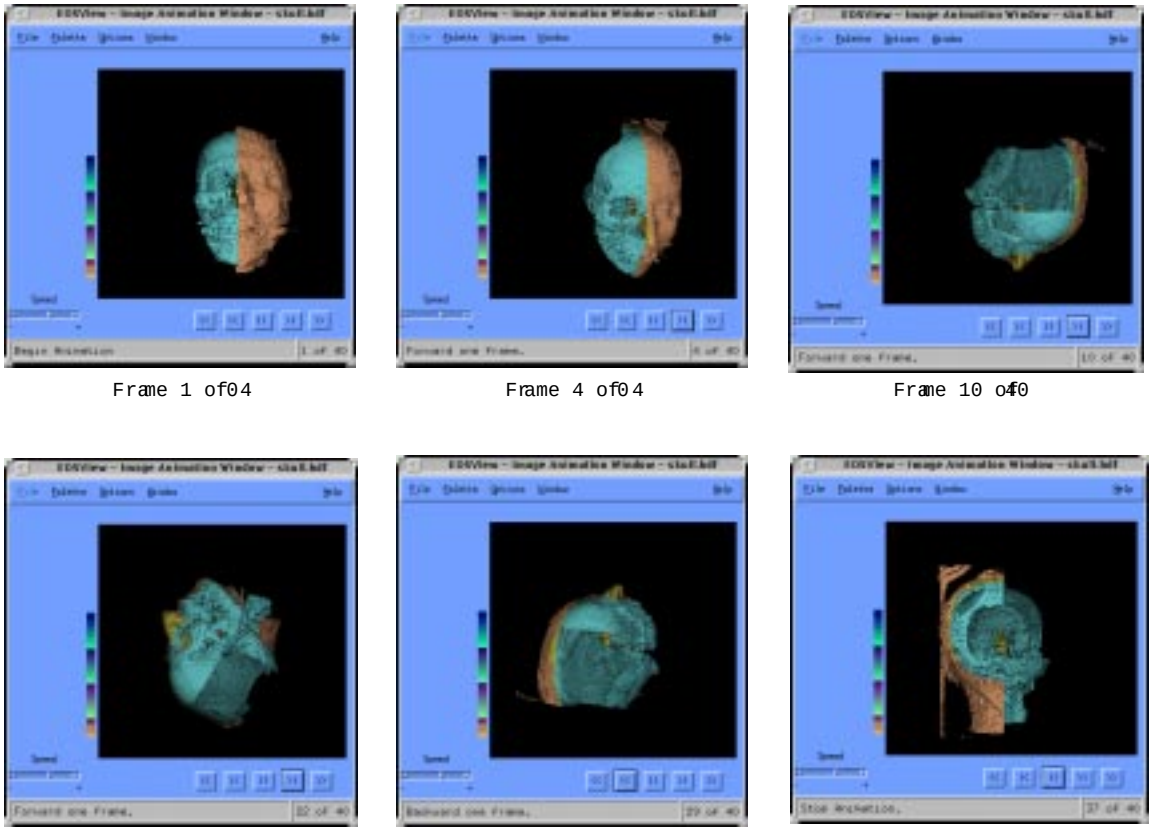


Figure 4.12.5-46. Animation Window Pop-up

The Animation Window has the following features:

- **Closing Animation Window** – The Close option on the menu bar of the animation window will cause the animation window to close.
- **Palette** – see Section 4.12.5.2.10 for a description of the Image Display palette.
- **Modes** -- There are three modes of animation. These modes may be selected by selecting the Options - Modes options of the animation window menu bar.
  - The first option "Stop at end" will display the images until the last image or first image is displayed. This is based upon what direction was selected for animation.
  - The second option "Continuous run" will cause the animation to go into an endless loop in the direction selected until the stop button is pressed.
  - The third option "Bounce" will cause the animation to run back and forth in forward and reverse order until the stop button is pressed.

- **Speed Control** -- The speed control slider will adjust the speed of the animation to the desired speed. Moving the slider in the "+" direction will increase the animation speed while moving the slider in the "-" direction will cause the animation to decrease in speed.
- **Window** – see Section 4.12.5.2.23 “Window Pulldown Menu.”
- **Help** – see Section 4.12.5.2.25 “Help Pulldown Menu.”
- **Start/Stop Buttons** -- There are five buttons centered underneath the animation image. The five buttons are labeled "<<" "|<" "||" ">|" and ">>". These buttons are known as the Start/Stop Buttons.
  - The button labeled "<<" will cause the animation to begin in reverse direction.
  - The button labeled "|<" will cause the animation image to decrease by one frame.
  - The button labeled "||" is the Stop button and will cause the animation to stop.
  - The button labeled ">|" will cause the animation image to increase by one frame.
  - The button labeled ">>" will cause the animation to begin in forward direction.

  The mode of operation of these buttons will be controlled by selecting the Modes option on the menu bar.

4.12.5.2.23 Window Pulldown Menu

The Window pulldown menu lists all windows which are currently open. Any window selected from this list will be shuffled to the top. Figure 4.12.5-47 shows the Window pulldown menu provided when the EOSView Main Window, orbital.hdf, rainbow.hdf and skull.hdf files are open.

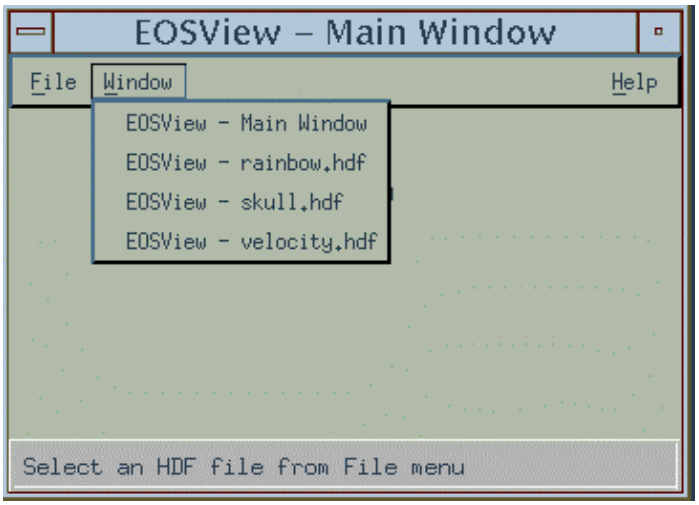


Figure 4.12.5-47. EOSView Main Screen Showing Window Pulldown Menu

The Window pulldown menu provides the same function on all other screens on which it appears.

4.12.5.2.24 Attributes Pulldown Menu

The Attributes option contains one pull-down menu item "Global…." which brings up a text file window (shown in Figure 4.12.5-48) with a list of attributes (e.g., parameters, values, version numbers) for the entire file or brings up a dialog which states that there are no attributes available.

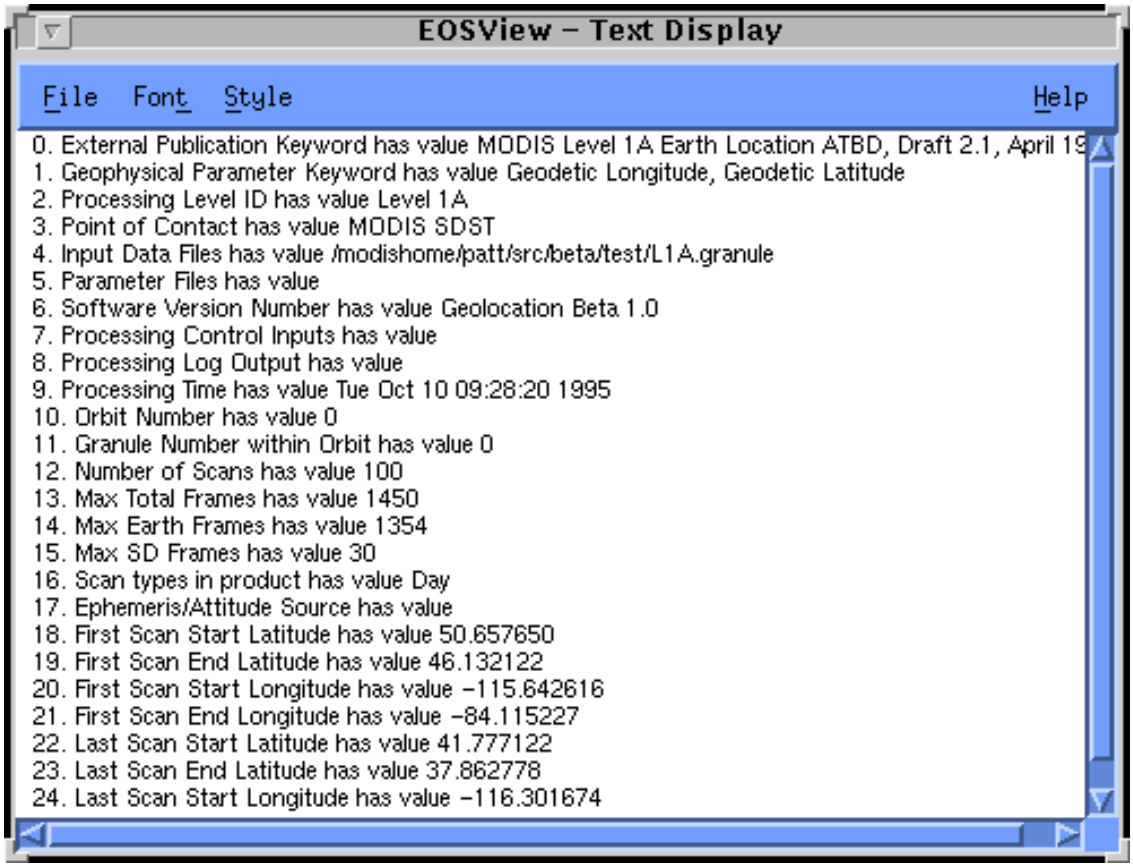


Figure 4.12.5-48. Text Display Pop-up

From the text window, the operator can do the following using the pull-down menus:

- **File** – exit the window
- **Font** – select from a list of fonts (e.g., courier, Helvetica). A box showing what the text looks like based on the selection is provided.
- **Style** – select from a list of styles (e.g., normal, bold, italic) and point sizes (e.g., 8 pt, 10 pt.)
- **Help** – see Section 4.12.5.2.25 "Help Pulldown Menu."

4.12.5.2.25 Help Pulldown Menu

The Help option contains a pulldown menu with the following selections: help on context, on help, on window, keys, contents, index and version.

Help On Context – turns the mouse pointer into a "?" which can be clicked on an area of interest, bringing up help text for that item.

Help On Help – tells the operator how to use the EOSView on-line help feature (see Figure 4.12.5-49) to help understand how to navigate through the Help system using the on-line hypertext system.

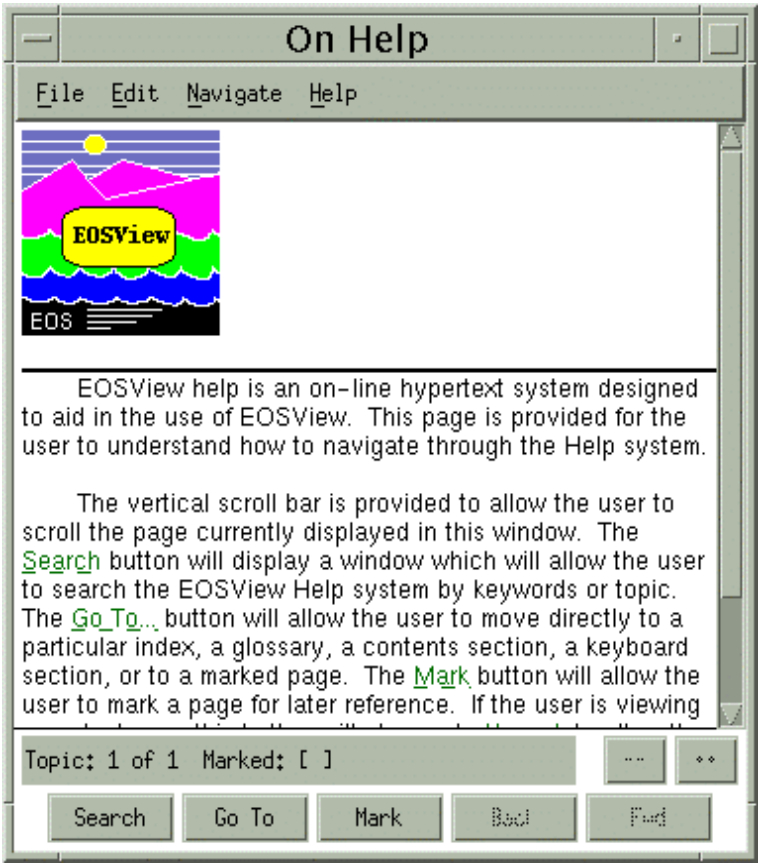


Figure 4.12.5-49. EOSView On Help Pop-up

- **File** – allows the operator to exit the On Help window. Print and Print Setup are not available.
- **Edit** – allows the operator to Copy, Copy Part of a Topic, or Copy as Wrapped
- **Navigate** – allows the operator to search for a topic, go to a specified topic, bookmark items of interest, go forward and back to a topic (these items are available in the form of pushbuttons at the bottom of the screen), and view a previous or next topic.
- **Help** – provides help on how to use help and "about help" (not functional).

The On Help window provides the following pushbuttons:

- The **"Search…"** button provides a way to search the EOSView Help system in one of two ways. The operator may select to search by Topic in which case a list of topics will be displayed for the operator to choose from or the operator may select search by Keyword in which case the operator will be presented with a list of keywords from which to choose.
- The **"Go To..."** button allows the operator to move to one of five topics:
  1. Index - the help described in the Help - Index selection from the menu bar.
  2. Glossary - a defined glossary of selectable terms common to EOSView.
  3. the help described in the Help - Contents selection from the menu bar.
  4. the help described in the Help - On Keys selection from the menu bar.
  5. any marked page (see below).
- The **"Mark"** button allows the operator to mark a page. Once the page is marked the page appears in a list box in the "Topic Go to Dialog" box. The marked page may then be selected and immediately recalled. The "Mark" button will appear as "Unmark" when viewing a marked page.
- The **"Unmark"** button allows the operator to unmark a marked page. If the operator is currently viewing a marked page an "X" appears in the check box labeled "Marked:." Pressing the "Unmark" button will cause the "X" to disappear and the page will not appear in the list box of the "Topic Goto Dialog."
- The **"Back"** button will return the operator to the previously viewed page. The operator should think of the help system as a book. The back button will only appear sensitized if the previously viewed page would be logically backward from the point of current view.
- The **"Forward"** button will move the operator to the last forward page viewed. The operator should think of the help system as a book. The forward button will only appear sensitized if the previously viewed page would have a page number greater than the page being currently viewed.

Help On Window

The Help On Window is the same as the Help On Index Window shown below.

Help On Keys

When Help On Keys is selected from the Help pulldown menu, the following message will appear in a Keys Window: “EOSView uses no special keys to traverse through the program. To navigate through EOSView simply use the mouse and click on the options that are desired.”

Help On Contents

The Help On Contents window tells the operator that EOSView is a tool written to assist operators view the contents of HDF files and that it is capable of displaying the contents of files containing HDF-EOS data. More help can be obtained by selecting the topic desired (see Figure 4.12.5-50).

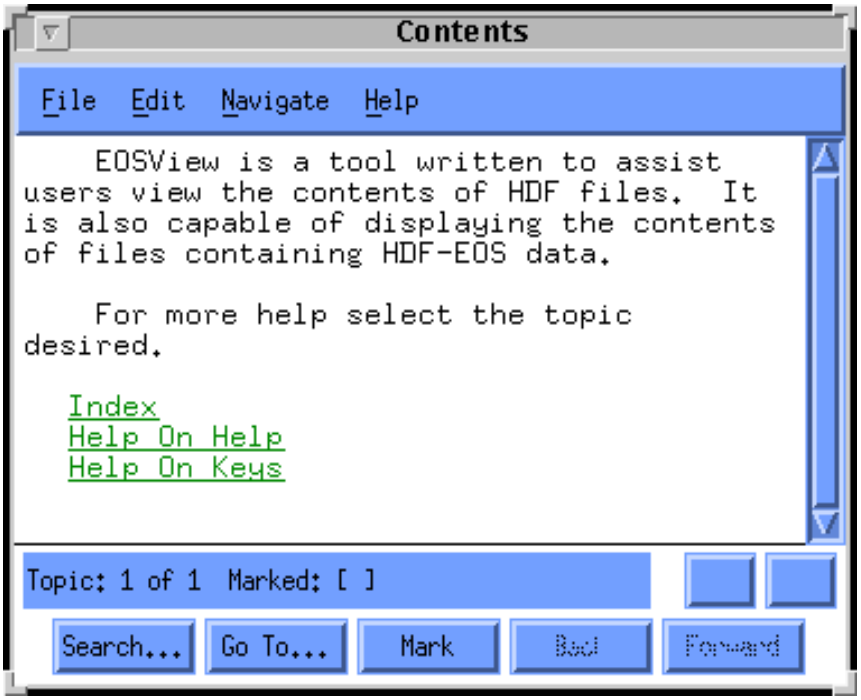


Figure 4.12.5-50. Help On Contents Pop-up

Help On Index

Selecting Help On Index brings up the Index window shown in Figure 4.12.5-51. This pop-up presents a list of each EOSView window and a list of hypertext help items.

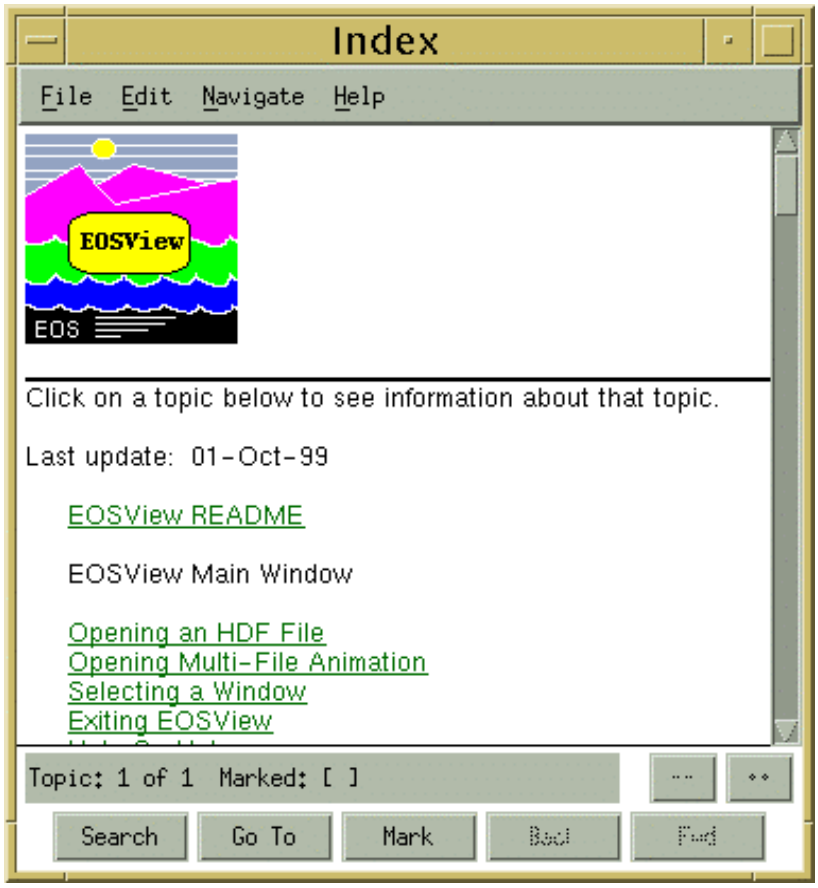


Figure 4.12.5-51. Help On Index Pop-up

Help On Version

Selecting Help On Version from the Help pulldown menu brings up the dialog shown in Figure 4.12.5-52.

Figure 4.12.5-52. Help On Version Dialog

Clicking on the Help button takes the operator to the Help on Contents screen (Figure 4.12.5-49). Click on Cancel to close the dialog.

4.12.5.2.26 Save Pulldown Menu

The Save option allows the user to save the contents listed in the window to an ASCII file. Selecting the Save option will display the File Save Dialog (Figure 4.12.5-12). Upon entering a unique file name the contents of the window will be saved to an ASCII file exactly as they are listed in the window. This Save option is different from the EOSView table save option (described in Section 4.12.5.2.8) in that there is no option to save in binary format. This option exists in EOSView windows which incorporates a scrollable text list as the main window function.

4.12.5.3 Required Operating Environment

EOSView was built and tested in a multi-platform environment. The list of approved platforms, which includes information about operating system is given in Table 4.12.5-9. The platforms should run Motif 1.2 window manager.

Table 4.12.5-9. Operating Systems

Platform	OS	Version
Sun Sparc	Solaris	2.5.1
HP 9000/735	HP-UX	10.20
SGI	IRIX	6.2
DEC Alpha	OSF1	4.0
IBM	AIX	4.2

Table 4.12.5-10 lists the environment variables for EOSView. These variables are optional.

Table 4.12.5-10. Environment Variables Used by EOSView

Environment Variable	Description or Valid Ranges
UIDPATH	location of the eosview.uid file that contains a description of GUI objects
EOSVIEWHELPDIR	location of eosview.csc (hypertext on-line help file) and eosview.dat file (idl commands)
ECS_HOME	directory for File Selection dialog to begin

The following attributes can be modified through the standard .Xdefaults file:

- focus policy (mouse pointer)
- icon geometry (size and location)
- fonts
- colors

4.12.5.3.1 Interfaces and Data Types

EOSView exchanges data of various types through internal interfaces within ECS:

- IDL for graphics
- XVT for GUI builder
- links with the HDF compile time library

4.12.5.4 Databases

None.

4.12.5.5 Special Constraints

EOSView will read only HDF and HDF-EOS formatted files.

4.12.5.6 Outputs

Outputs from EOSView include HDF file screen images and data displays.

4.12.5.7 Event and Error Messages

See Appendix A.

4.12.5.8 Reports

None.

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